

# **EXHIBIT 7**

Robert Cook, Ph.D.

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IN THE UNITED STATES DISTRICT COURT  
FOR THE EASTERN DISTRICT OF NEW JERSEY

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IN RE: JOHNSON & JOHNSON  
TALCUM POWDER PRODUCTS  
MARKETING, SALES PRACTICES,  
AND PRODUCTS LIABILITY  
LITIGATION

THIS DOCUMENT RELATES TO  
ALL CASES

Case No. 16-2738  
(FLW) (LHG)

MDL Docket No. 2738

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Wednesday, January 30, 2019

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The video deposition of ROBERT COOK, Ph.D.,  
taken pursuant to notice, was held at the  
Hilton Garden Inn, 2555 Hilton Garden Drive,  
Auburn, Alabama, commencing at approximately  
8:56 a.m., on the above date, before Lois Anne  
Robinson, Registered Diplomate Reporter,  
Certified Realtime Reporter, and  
Notary Public for the State of Alabama.

Robert Cook, Ph.D.

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<p>1 APPEARANCES</p> <p>2 COUNSEL FOR PLAINTIFFS' STEERING COMMITTEE:</p> <p>3 BEASLEY, ALLEN, P.C.</p> <p>4 218 Commerce Street</p> <p>5 Montgomery, Alabama 36104</p> <p>6 BY: P. LEIGH ODELL, Esquire</p> <p>7 Leigh.odell@beasleyallen.com</p> <p>8 JENNIFER K. EMMEL, ESQUIRE</p> <p>9 Jennifer.emmel@beasleyallen.com</p> <p>10 WILENTZ, GOLDMAN &amp; SPITZER, P.A.</p> <p>11 90 Woodbridge Center Drive</p> <p>12 Suite 900, Box 10</p> <p>13 Woodbridge, New Jersey 07095-0958</p> <p>14 BY: DANIEL R. LAPINSKI, ESQUIRE</p> <p>15 Dlapinski@wilentz.com</p> <p>16 FOR THE DEFENDANT, JOHNSON &amp; JOHNSON:</p> <p>17 DRINKER BIDDLE &amp; REATH LLP</p> <p>18 600 Campus Drive</p> <p>19 Florham Park, New Jersey 07932-1047</p> <p>20 BY: JACK N. FROST, JR., ESQUIRE</p> <p>21 Jack.frost@dbi.com</p> <p>22 DRINKER BIDDLE &amp; REATH</p> <p>23 One Logan Square, Suite 2000</p> <p>24 Philadelphia, Pennsylvania 19103</p> <p>BY: KATHERINE MCBETH, ESQUIRE</p> <p>Katherine.mcbeth@dbi.com</p> <p>FOR THE DEFENDANT, IMERY'S TALC AMERICA:</p> <p>GORDON &amp; REES SCULLY MANSUKHANI, LLP</p> <p>816 Congress Avenue, Suite 1510</p> <p>Austin, Texas 78701</p> <p>BY: KENNETH J. FERGUSON, ESQUIRE</p> <p>Kferguson@gordonrees.com</p> <p>ANDREW W. CARY, ESQUIRE</p> <p>Acary@gordonrees.com</p>	<p>1 INDEX</p> <p>2 EXAMINATION PAGE</p> <p>3 By Mr. Frost 11</p> <p>4 By Mr. Ferguson 410</p> <p>5 By Ms. O'Dell 455</p> <p>6 By Mr. Ferguson 495</p> <p>7 By Mr. Frost 505</p> <p>8 * * * * *</p> <p>9 EXHIBITS</p> <p>10 1 Rule 26 Expert Report of Robert H. Cook, Ph.D. 11</p> <p>11 2 Amended Rule 26 Expert Report of Robert H. Cook, 11</p> <p>12 Ph.D.</p> <p>13 3 File folder of notes brought to depo, individually 12</p> <p>14 marked 3.1 to 3.24</p> <p>15 4 Invoices and checks paid to Dr. Cook 13</p> <p>16 5 List of specific items requested relative to 32</p> <p>17 mining and geology</p> <p>18 6 "Mining" - Rishabh Metals and Chemicals 54</p> <p>19 7 Expert report of Judith Zelikoff, Ph.D. 55</p> <p>20 8 Mineral Resource Provinces of Vermont 145</p> <p>21 9 "Serpentinization: Origin of certain Asbestos, 155</p> <p>22 Talc and Soapstone Deposits."</p> <p>23 10 Chapter V - Ore Deposits near contact of massive 157</p> <p>24 and layered rocks</p>
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<p style="text-align: right;">Page 10</p> <p>1 MR. FROST: 2 Jack Frost, Drinker Biddle &amp; Reath, on 3 behalf of Johnson &amp; Johnson. 4 MS. McBETH: 5 Catherine McBeth, Drinker Biddle &amp; 6 Reath, on behalf of Johnson &amp; Johnson. 7 MR. FERGUSON: 8 Ken Ferguson, Gordon &amp; Rees, for 9 Imerys. 10 MR. CARY: 11 Andrew Cary, Gordon &amp; Rees, for Imerys. 12 VIDEOGRAPHER: 13 The court reporter is Lois Robinson, 14 who will now swear in the witness. 15 THE COURT REPORTER: 16 We just had someone arrive. 17 Do you want to state your appearances? 18 MR. BILLINGS-KANG: 19 Sure. 20 This is James Billings-Kang on behalf 21 of Personal Care Products Council. 22 ROBERT B. COOK, Ph.D., 23 the witness, after having first been 24 duly sworn to tell the truth, the whole truth,</p>	<p style="text-align: right;">Page 12</p> <p>1 as Exhibits 1 and 2. And do you recognize these 2 are the reports that you drafted in this matter? 3 A The cover pages are correct, and I 4 assume that the contents are. 5 Q Okay. And other than these two 6 reports, do you have any other reports, written 7 research, anything else that you've created for 8 this matter that isn't reflected by those? 9 A I have a few handwritten notes that I 10 brought in response to your request. 11 Q Okay. Could I see those? 12 A (Witness complies.) 13 Q We'll mark them now, and I'll take a 14 look at them during the break. 15 A Yeah. 16 MR. FROST: 17 Could you mark this as Exhibit 3, 18 please. 19 (DEPOSITION EXHIBIT NUMBER 3 20 WAS MARKED FOR IDENTIFICATION.) 21 MR. FROST: 22 Q And then I also note counsel brought a 23 collection of invoices today. I'll mark those as 24 Exhibit 4.</p>
<p style="text-align: right;">Page 11</p> <p>1 and nothing but the truth, was examined and 2 testified as follows: 3 EXAMINATION 4 BY MR. FROST: 5 Q All right. Good morning, Dr. Cook. 6 A Good morning. 7 Q My name is Jack Frost, and I'll be 8 asking the majority of the questions today. 9 A Okay. 10 Q Before we get started, have you ever 11 been deposed before? 12 A Yes. 13 Q Okay. So you generally know how this 14 works. We've got to verbalize all our answers. 15 A Correct. 16 Q Hand gestures, uh-huhs, huh-uhs don't 17 work. And, other than that, we need to be 18 careful not to speak over each other. 19 All right. Can I please mark these 20 two? 21 (DEPOSITION EXHIBITS 1 AND 2 22 WERE MARKED FOR IDENTIFICATION.) 23 MR. FROST: 24 Q I'm gonna hand you what's been marked</p>	<p style="text-align: right;">Page 13</p> <p>1 (DEPOSITION EXHIBIT NUMBER 4 2 WAS MARKED FOR IDENTIFICATION.) 3 MR. FROST: 4 Q All right. So other than the two 5 reports and your notes, is there anything else, 6 any other writings that you have that reflects 7 any of the work you've done in this case? 8 A Well, I brought a -- some photographs 9 of my personal library, which -- which I used to 10 gather my -- my background information. 11 Q Okay. 12 A And I brought photographs because I 13 donated my library to a museum that maintains a 14 research library in Atlanta just a couple months 15 ago. 16 Q That's okay. 17 A If you'd like to see what I was using, 18 I brought pictures of it. 19 Q Yeah. 20 MR. FROST: 21 I think what we'll do, Leigh, is at the 22 end, we'll do like we did with -- for 23 Dr. Crocker. We'll somehow figure out a way to 24 mark everything that's been brought and, you</p>

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<p>1 know, we'll figure out during a break what the 2 best way to -- to do that is. So we'll -- for 3 now we can refer to the stuff that's on the 4 table. 5 Q It looks like you brought a collection 6 of documents, literature, and, as you said, the 7 picture of your library. 8 A Yes. And a publication on amphiboles, 9 if there were any questions about amphiboles. 10 Q Okay. 11 A Just a good summary document. 12 Q All right. And is that, the book on 13 amphiboles, is that in the materials relied upon? 14 A Well, I relied on it. I don't remember 15 whether we listed it or not. It's -- 16 MS. O'DELL: 17 I believe it to be. 18 MR. FROST: 19 It is reflected? 20 MS. O'DELL: 21 I believe it to be reflected. But we 22 can go through -- 23 MR. FROST: 24 I was going to say, we can always</p>	<p>1 sitting here today, you don't intend to offer any 2 additional opinions that aren't otherwise set 3 forth in these reports? 4 A That's correct. 5 Q And do you believe the reports to be 6 accurate and complete? 7 A When you say "the reports," you mean 8 these two reports? 9 Q Yes. 10 A Yes. 11 Q Yes. These, Exhibit 1 and Exhibit 2. 12 A Yes. 13 Q And is it fair to summarize the 14 opinions you're rendering in this case all relate 15 to geology, mineralogy, and sort of mining 16 practices? 17 A It's -- it goes beyond that in that I 18 am offering opinions related to sampling and 19 analytical techniques. 20 Q Okay. I'd loop that under the mining. 21 A Yeah. 22 Q Other than the geology, mineralogy, 23 mining practices, and the sampling and 24 compositing techniques, is there anything else</p>
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<p>1 check -- 2 MS. O'DELL: 3 Yeah. 4 MR. FROST: 5 -- that during a break as well. 6 Q All right. Excellent. 7 So you understand that you've been 8 retained by plaintiffs to be an expert in this 9 talc MDL; is that correct? 10 A Correct. 11 Q And you understand that you're offering 12 some opinions in this case; right? 13 A Correct. 14 Q All the opinions that you plan to offer 15 in this case, are they all reflected in the two 16 reports that we've marked as Exhibits 1 and 2? 17 A Yes. Based on the reports as they 18 stand, yes. I did reserve the right to -- to 19 supplement these reports if additional 20 information is supplied. 21 Q Okay. 22 A But, yes, my opinions are pretty much 23 everything that I -- I wanted to say. 24 Q All right. So is it fair to say that,</p>	<p>1 you intend to offer opinions on here today? 2 A No. 3 Q And, in fact, you don't intend to offer 4 any opinions on whether or not talc or talcum 5 powder can cause ovarian cancer; correct? 6 A No. No. 7 Q And same with mesothelioma. You don't 8 intend to offer opinions that talc or talcum 9 powder can cause mesothelioma? 10 A No. 11 MS. O'DELL: 12 Dr. Cook, if you'd just wait till Jack 13 finishes. 14 THE WITNESS: 15 Uh-huh. 16 MS. O'DELL: 17 Can you just -- 18 THE WITNESS: 19 Okay. 20 MS. O'DELL: 21 Another couple of seconds. That will 22 be helpful. 23 MR. FROST: 24 Q Turning to Exhibit 2, this is captioned</p>

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<p style="text-align: right;">Page 18</p> <p>1 as an amended report -- is that correct? --</p> <p>2 that -- the Exhibit 2, the second of the two</p> <p>3 reports?</p> <p>4 A Yes.</p> <p>5 Q Okay. And why did you issue an amended</p> <p>6 report in this case?</p> <p>7 A Additional information came in, and in</p> <p>8 editing my own original first version, I found</p> <p>9 grammatical errors and that type of thing, which,</p> <p>10 being a retired professor, I can't abide.</p> <p>11 Q Do you recall what additional</p> <p>12 information came in that you reviewed?</p> <p>13 A There were depositions by several</p> <p>14 people. There was a McCarthy report related to</p> <p>15 beneficitation. There was information related --</p> <p>16 additional information related to Italian talc.</p> <p>17 There was a stack of documents that I received</p> <p>18 primarily online in -- in a Dropbox.</p> <p>19 Q The depositions by several people you</p> <p>20 received, do you recall what depositions those</p> <p>21 were?</p> <p>22 A Two of them were by people that were</p> <p>23 not really involved in this, but they -- they</p> <p>24 offered information related to the -- the</p>	<p style="text-align: right;">Page 20</p> <p>1 MS. O'DELL:</p> <p>2 Excuse me. And just to any questions</p> <p>3 that would -- would require you to disclose</p> <p>4 things that we've discussed, those would be</p> <p>5 things that are protected by the work product</p> <p>6 privilege, and --</p> <p>7 THE WITNESS:</p> <p>8 Right.</p> <p>9 MS. O'DELL:</p> <p>10 -- and I would ask you not to --</p> <p>11 THE WITNESS:</p> <p>12 Right.</p> <p>13 MS. O'DELL:</p> <p>14 -- testify to those. And I -- I'll be</p> <p>15 careful to object to --</p> <p>16 THE WITNESS:</p> <p>17 Correct.</p> <p>18 MS. O'DELL:</p> <p>19 -- a specific question.</p> <p>20 MR. FROST:</p> <p>21 Q And your counsel is correct. I'm</p> <p>22 allowed to know data, documents, things like</p> <p>23 that, and other things that they gave you or told</p> <p>24 you that influenced your opinion in this case,</p>
<p style="text-align: right;">Page 19</p> <p>1 mineralogy of talc and related amphiboles. One</p> <p>2 was by Mickey Gunter. One was by a man named</p> <p>3 Sanchez, who was one of Gunter's students. There</p> <p>4 was a deposition by a man named Glassley, who</p> <p>5 once worked in Vermont. Those were the three</p> <p>6 that I remember.</p> <p>7 Q Do you recall the dates on those</p> <p>8 depositions?</p> <p>9 A No.</p> <p>10 Q Do you recall if those depositions were</p> <p>11 taken after you had drafted your initial report?</p> <p>12 A I think that they were all before.</p> <p>13 Q They were all before?</p> <p>14 A Uh-huh.</p> <p>15 Q And those had not been made available</p> <p>16 to you prior to your first report?</p> <p>17 A No.</p> <p>18 Q And I take it plaintiffs' counsel</p> <p>19 provided those depositions to you?</p> <p>20 A Yes.</p> <p>21 Q Did plaintiffs' counsel advise you as</p> <p>22 to why they were providing those depositions to</p> <p>23 you?</p> <p>24 A No.</p>	<p style="text-align: right;">Page 21</p> <p>1 but not communications, necessarily, between the</p> <p>2 two.</p> <p>3 A I understand.</p> <p>4 The -- the flow of documents has been</p> <p>5 sort of a continual thing. It -- it's not that,</p> <p>6 "Okay" --</p> <p>7 I -- I finished writing my -- my report</p> <p>8 in '08.</p> <p>9 -- "we've got another big pile of</p> <p>10 documents we want you to see."</p> <p>11 They would enter material into my</p> <p>12 Dropbox routinely, I mean, maybe a couple times a</p> <p>13 week. Because, apparently, material was being</p> <p>14 supplied all along by Johnson &amp; Johnson or Imerys</p> <p>15 or someone. And as they would scan or screen the</p> <p>16 material, if it was -- if they were things that</p> <p>17 would relate to what I was looking at, then they</p> <p>18 would enter them into my Dropbox and alert me.</p> <p>19 But there was no -- no instructions in</p> <p>20 -- in terms of what I should be looking at or for</p> <p>21 or anything like that. It was just, "Here's more</p> <p>22 information."</p> <p>23 Q All right. When did plaintiffs --</p> <p>24 And I take it, by "they," you're</p>

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<p style="text-align: right;">Page 22</p> <p>1 referring to plaintiffs' counsel?</p> <p>2 A Correct.</p> <p>3 Q When did plaintiffs' counsel start</p> <p>4 sending you documents for your review in this</p> <p>5 case?</p> <p>6 A Ms. O'Dell contacted me, I think, in</p> <p>7 April of 2017, and she supplied me -- you know,</p> <p>8 after discussing the -- the -- what she would</p> <p>9 like for me to do, I agreed, and she began to</p> <p>10 give me background information, including, you</p> <p>11 know, the documents that you see here, I think</p> <p>12 still in late April of 2017.</p> <p>13 Q And plaintiffs' counsel continued to</p> <p>14 supply you documents through --</p> <p>15 A Still going on.</p> <p>16 Q Still -- they're still --</p> <p>17 A Sure.</p> <p>18 Q -- continuing to supply you documents</p> <p>19 now?</p> <p>20 A Sure.</p> <p>21 Q And it sounds like you have a -- a</p> <p>22 Dropbox that they're loading documents into?</p> <p>23 A Yes.</p> <p>24 Q Is that the only way that they're</p>	<p style="text-align: right;">Page 24</p> <p>1 Q Did they mark the pages of interest for</p> <p>2 you to look at before you wrote your report?</p> <p>3 A No. No.</p> <p>4 Q Okay. This was all done in preparation</p> <p>5 for the deposition --</p> <p>6 A Oh, yes.</p> <p>7 Q -- today?</p> <p>8 A Just within the last day or so.</p> <p>9 Q Okay. I'll rephrase my question.</p> <p>10 So, in sending you documents, at any</p> <p>11 time that you were being sent documents that you</p> <p>12 were gonna rely on for your report, did they ever</p> <p>13 send documents that were already tabbed or</p> <p>14 highlighted or had any annotations on them?</p> <p>15 A Highlighted, some of these look like</p> <p>16 they had been highlighted years ago, because they</p> <p>17 were xeroxed copies and you could see where there</p> <p>18 was a -- a different shade of gray.</p> <p>19 Q Uh-huh.</p> <p>20 A And, so, yes, there were documents like</p> <p>21 that. And occasionally I would get something</p> <p>22 that would have a yellow -- yellow highlighter on</p> <p>23 it, and it may or may not have related to what I</p> <p>24 was, you know, supposed to be looking at.</p>
<p style="text-align: right;">Page 23</p> <p>1 sending you documents?</p> <p>2 A No. No. Sometimes they'll print them</p> <p>3 out for me. These were printed out in -- in</p> <p>4 Montgomery. I didn't print them out on my HP</p> <p>5 bottom-of-the-line printer.</p> <p>6 Q And looking over at the binders that</p> <p>7 are on the table, I note that there are tabs and</p> <p>8 sort of stickies and things like that --</p> <p>9 A Sure.</p> <p>10 Q -- throughout them. Are those things</p> <p>11 that you put in, or did they come that way from</p> <p>12 plaintiffs' counsel?</p> <p>13 A No. It's -- it's -- it's a little</p> <p>14 of -- of both. These are the actual documents</p> <p>15 that I referred to in my report. And some of</p> <p>16 them are long --</p> <p>17 Q Uh-huh.</p> <p>18 A -- and there may be only one page that</p> <p>19 I'm actually referencing. And, so, I've gone</p> <p>20 through, with their help, and marked that page so</p> <p>21 that if you ask me about a document, I -- we</p> <p>22 don't spend two hours as I kind of try to figure</p> <p>23 out which page out of a hundred pages we need to</p> <p>24 find a quote on.</p>	<p style="text-align: right;">Page 25</p> <p>1 Q Okay. Did you use these highlights and</p> <p>2 things of that nature to help influence what you</p> <p>3 were looking at or writing in your report?</p> <p>4 A No. But -- but I couldn't help but</p> <p>5 wonder why they were highlighted, so I, of</p> <p>6 course, looked at them. And some of them were</p> <p>7 of -- of value, and some weren't.</p> <p>8 I mean, you'll -- I mean, even though</p> <p>9 this looks like a lot of material, this isn't --</p> <p>10 it's not half of what they sent. And I -- I have</p> <p>11 looked at every page. I won't -- won't say I've</p> <p>12 read every page, but I've certainly looked at</p> <p>13 every page that they sent.</p> <p>14 I mean, you know, you can't go through</p> <p>15 the IARC stuff without falling asleep repeatedly.</p> <p>16 So, you know, you just can't read all that. But</p> <p>17 you can look at it, looking for, you know, key</p> <p>18 words and things like that.</p> <p>19 Q Okay. Regarding the Imerys and</p> <p>20 Johnson &amp; Johnson documents that you've been</p> <p>21 provided in this case, I take it everything you</p> <p>22 have has been provided to you by plaintiffs'</p> <p>23 counsel?</p> <p>24 A Other -- other than the material in my</p>

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<p style="text-align: right;">Page 26</p> <p>1 own library, which --</p> <p>2 Q Uh-huh.</p> <p>3 A -- which, you know, some of it's</p> <p>4 been -- been referenced in my report. And</p> <p>5 there's a lot of other stuff that, you know,</p> <p>6 there would be no need to reference but yet it</p> <p>7 deals with talc.</p> <p>8 Q Did plaintiffs' counsel provide you any</p> <p>9 of the published literature you relied on in your</p> <p>10 reports?</p> <p>11 A They've supplied me with the IARC</p> <p>12 stuff, if you want to consider that published,</p> <p>13 which I do. But in terms of copies of certain</p> <p>14 published papers that were in journals, yes, they</p> <p>15 supplied me with some full copies of things that</p> <p>16 I only had abstracts of.</p> <p>17 And -- and, in fact, there was one that</p> <p>18 I couldn't -- I had a -- I had a really good</p> <p>19 reference to it, but I couldn't come up with it,</p> <p>20 and it's from a field trip guide book in Italy.</p> <p>21 And they supplied me with that.</p> <p>22 Q Did plaintiffs -- I guess, better way</p> <p>23 of asking this, did plaintiffs supply you with</p> <p>24 any published literature other than the two IARC</p>	<p style="text-align: right;">Page 28</p> <p>1 already had copies of. Some they gave me a copy</p> <p>2 of and I already had it.</p> <p>3 Q Uh-huh.</p> <p>4 A So there's sort of a -- of an overlap</p> <p>5 there.</p> <p>6 Q Okay. Was there anything that they</p> <p>7 supplied you that you'd never seen before that</p> <p>8 influenced or changed your opinions in this case?</p> <p>9 MS. O'DELL:</p> <p>10 Object to the form.</p> <p>11 Do you mean like in --</p> <p>12 MR. FROST:</p> <p>13 I'm talking about literature.</p> <p>14 MS. O'DELL:</p> <p>15 Okay. Was it --</p> <p>16 I'm sorry.</p> <p>17 MR. FROST:</p> <p>18 Yeah, I was going to say --</p> <p>19 MS. O'DELL:</p> <p>20 That was my objection.</p> <p>21 MR. FROST:</p> <p>22 You're correct. My question wasn't</p> <p>23 clear.</p> <p>24 Q Focusing on literature, was there any</p>
<p style="text-align: right;">Page 27</p> <p>1 publications on their own, or was it all stuff</p> <p>2 that you had requested if they could get copies</p> <p>3 of for you?</p> <p>4 A No. I -- I'm sure that if we went back</p> <p>5 through everything I had, there would be copies</p> <p>6 of publications. There were some Bureau of Mines</p> <p>7 publications. There was a USGS publication.</p> <p>8 Um --</p> <p>9 Q And I don't mean to cut you off, but</p> <p>10 were these publications that you asked to see or</p> <p>11 were these publications that plaintiffs' counsel</p> <p>12 sent you and told you --</p> <p>13 A It was a --</p> <p>14 Q -- to look at?</p> <p>15 A It was a little bit of both.</p> <p>16 Q Little bit --</p> <p>17 A If you --</p> <p>18 Q -- of both?</p> <p>19 A If you look -- if you look at the back</p> <p>20 of my report, there's an enormous long listing</p> <p>21 of -- of materials that I -- I relied on. And</p> <p>22 this is -- this is pretty much the list of things</p> <p>23 that -- that -- that I -- I have looked at. Some</p> <p>24 of those were supplied by Beasley Allen. Some I</p>	<p style="text-align: right;">Page 29</p> <p>1 literature that plaintiffs' counsel forwarded you</p> <p>2 that influenced -- influenced or changed the</p> <p>3 opinions that you were gonna render in this case?</p> <p>4 MS. O'DELL:</p> <p>5 Object to the form.</p> <p>6 A No. And there -- there's -- there's a</p> <p>7 reason for that. I didn't have a lot of</p> <p>8 opinions. I hadn't thought about the -- the</p> <p>9 talc-ovarian cancer issue at all until Ms. O'Dell</p> <p>10 called me. So I had -- I had very few opinions.</p> <p>11 I was familiar with the geology, and I</p> <p>12 know a lot about mining, and, so, you know, my --</p> <p>13 my fundamental knowledge and ideas in those two</p> <p>14 areas were already pretty well established.</p> <p>15 And, so, from the standpoint of -- of</p> <p>16 those, the mineralogy, there was nothing that --</p> <p>17 I mean, there's some errors in the mineralogy</p> <p>18 that, you know, that's floating around right now.</p> <p>19 But that was information I knew already.</p> <p>20 The -- a couple of the papers that I --</p> <p>21 I found in dealing with the Italian talc deposits</p> <p>22 enhanced what I knew. They were -- they were</p> <p>23 interesting.</p> <p>24 MR. FROST:</p>

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<p style="text-align: right;">Page 30</p> <p>1 Q Okay. If -- if we were to go through 2 the -- the reference list at the back of your 3 report, would you be able to tell me what was 4 supplied to you by plaintiffs that you didn't 5 already have? 6 A Hmm. 7 MS. O'DELL: 8 Are you limiting that to the 9 literature? 10 MR. FROST: 11 I gotcha. 12 Yeah, to the literature. 13 THE WITNESS: 14 Did we put all the IARC stuff in -- in 15 literature? 16 I mean, some of it has Bates numbers. 17 And if it was a Bates number, then they obviously 18 supplied it to me. Doesn't mean I didn't already 19 have a copy of it. 20 If it was a -- if it was a company 21 document of some sort, obviously, I never had a 22 copy of it. 23 But there -- I could sit down and maybe 24 go through the list with you and show you which</p>	<p style="text-align: right;">Page 32</p> <p>1 geology of the -- the relevant talc deposits. 2 Q Do you recall what you asked for? 3 A Well, just happen to have written it 4 down. 5 Yeah. There you go. 6 That's a fairly comprehensive list of 7 what I asked for. 8 MR. FROST: 9 Mark this as Exhibit 5. I think we're 10 on 5; right? 11 THE COURT REPORTER: 12 Yes, uh-huh. 13 MR. FROST: 14 Thank you. 15 (DEPOSITION EXHIBIT NUMBER 5 16 WAS MARKED FOR IDENTIFICATION.) 17 MR. FROST: 18 Q Okay. I'll hand this back to you. 19 A Okay. 20 Q So you believe that's a fairly 21 comprehensive list of all the documents you asked 22 for from plaintiffs' counsel? 23 A It probably isn't, because this has 24 been going on -- we're pushing two years now.</p>
<p style="text-align: right;">Page 31</p> <p>1 things that -- that they may have given me, but 2 it's not gonna be -- isn't anything consequential 3 relative to the materials I already had. 4 MR. FROST: 5 Okay. I'm gonna ask maybe we'll do 6 that during a break or something -- 7 THE WITNESS: 8 Yeah. 9 MR. FROST: 10 -- if we can highlight on the Exhibit 11 2, you know, what he believes was supplied by 12 plaintiffs' counsel. That might be helpful. 13 A It's -- it's mainly documents related 14 to governmental agencies, that type of thing, 15 that I would not have had in my -- my library up 16 until this point. 17 MR. FROST: 18 Q Okay. Turning to the company 19 documents, did you make a particular request for 20 documents or the type of documents that you would 21 want to see, or did plaintiffs' counsel just 22 provide you documents? 23 A No. I did. I made a request for a 24 long list of things related to the mining and</p>	<p style="text-align: right;">Page 33</p> <p>1 And I'm sure there were instances when -- when we 2 were talking on the phone and I'd say, "Do we -- 3 do we have anything related to froth flotation 4 that was used at West Windsor?" I mean, I might 5 have -- I might have, you know, couched a 6 question like that. 7 So I would say that, in all fairness, I 8 probably did ask for other things. 9 Q Sitting here today, you couldn't come 10 up with a -- a list -- 11 A No. 12 Q -- of what those other things may be? 13 A No. 14 Q Do they all generally relate to the 15 categories that are, you know, in there, which 16 appear to be kind of the geology, mineralogy of 17 the three districts -- 18 A Yes. 19 Q -- and then the mining practices of the 20 two companies? 21 A Yes. 22 Q And did you ever ask for any documents 23 that you weren't provided? 24 A I don't think so.</p>

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<p style="text-align: right;">Page 34</p> <p>1 Q Did you ever ask to conduct your own 2 searches of all of the documents provided by the 3 two corporate defendants in this case? 4 A I'm -- I'm not sure I understand what 5 you're asking. 6 Q Sure. Did you ever ask for access to 7 all of the documents that have been produced in 8 this case by -- 9 A No. 10 Q -- either Johnson &amp; Johnson or Imerys? 11 A No. 12 Q Did you ever ask to be able to run any 13 searches yourself against a database, say, of all 14 of those documents? 15 A No. 16 Q So you've relied on the set of 17 documents as put together by plaintiffs' 18 counsel -- 19 A Yes. 20 Q -- for your opinions? 21 MS. O'DELL: 22 Object -- object to the form. 23 MR. FROST: 24 Q And you have no way of knowing --</p>	<p style="text-align: right;">Page 36</p> <p>1 A I was told that -- that, relative to 2 this material here, that what I've got is what -- 3 is what they received after their request. 4 MR. FROST: 5 Q All right. And you have no way of 6 verifying whether or not what they sent you was 7 just a collection of documents that they had 8 culled through that -- 9 MS. O'DELL: 10 Object -- 11 MR. FROST: 12 Q -- justifies their opinions and their 13 positions in this case? 14 MS. O'DELL: 15 Object to the form. 16 A I would have -- I don't know how 17 anybody would know the answer to that. I mean, 18 no. 19 MR. FROST: 20 Q Okay. 21 A I mean, I've not had access to every 22 document involved in this case, so I have no -- 23 no idea. 24 Q Okay. Do you think, as an expert</p>
<p style="text-align: right;">Page 35</p> <p>1 right? -- if you've received every document that 2 would be responsive to any of the requests you 3 made? 4 A Based on the Bates numbers, I would say 5 that -- that -- that there's -- that I've -- I've 6 looked at maybe a few percent of the documents 7 that are somehow entered into this. And, so, I 8 can't say that -- that Imerys 436182 wouldn't 9 have something relevant. 10 Q Uh-huh. 11 A But I may not have seen it. It may not 12 have been screened by the -- by the lawyers and 13 deemed something that they should send to me. 14 Q Okay. 15 A So I don't really know. 16 Q I was gonna say, that -- that's sort of 17 what I'm getting at. What I'm getting at is 18 you -- you have no way of knowing one way or the 19 other whether or not what you were provided in 20 response to your request for documents is a 21 complete set of all documents on those topics; 22 correct? 23 MS. O'DELL: 24 Object to the form.</p>	<p style="text-align: right;">Page 37</p> <p>1 giving opinions regarding some of the mining and 2 sampling practices -- for example, of Imerys and 3 Johnson &amp; Johnson -- that it would be important 4 to have a complete set of all data and 5 information before rendering those opinions? 6 MS. O'DELL: 7 Object to the form. 8 A My opinions are based on the material 9 that was supplied to us after we asked. 10 MR. FROST: 11 Q Okay. So if there were additional 12 materials, you know, that either contradict or 13 are different than some of the materials you've 14 seen, would you look at and view those with an 15 open mind? 16 A Absolutely. I mean, that's the way I 17 started this, and that's the way we're gonna end 18 it. 19 Q And, again, if there were documents 20 that potentially refuted some of your opinions, 21 yeah, you would look at those and be willing to 22 either adjust or change your opinions based on 23 those documents? 24 A Well, I -- I looked at this as a -- as</p>

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<p>1 an exercise in the application of the scientific 2 method. And, so, that -- that requires you to 3 continue to test what you have opinion on. But 4 it looks like, based on everything that I've -- 5 I've been given, that -- that there's pretty -- 6 pretty solid support for the opinions I've made 7 so far. But -- but I would be more than willing 8 to look at additional data, for sure. 9 Q And, for example, you know, you note 10 with respect to, say, sampling and testing that 11 there appears to be hundreds, if not thousands, 12 of tests that are missing from the documents 13 you've looked at. Is that correct? 14 MS. O'DELL: 15 Object to the form. 16 A That -- that would be my -- that -- 17 that could be an opinion, yes. It -- because 18 there's description of samples that are taken 19 here, there, and everywhere and in certain time 20 periods, and then -- but you look for the results 21 of the analyses, and they aren't there. 22 MR. FROST: 23 Q Okay. 24 A So, yeah, I'm sure.</p>	<p>1 today, have you reviewed any other depositions to 2 prepare for this case? 3 MS. O'DELL: 4 Object to the form. I don't think he's 5 mentioned a Dr. -- there's not -- I'm not aware 6 of a Downey -- 7 MR. FROST: 8 Oh, is he not a doctor? 9 MS. O'DELL: 10 -- witness in this case. 11 MR. FROST: 12 Oh, okay. 13 MS. O'DELL: 14 I don't think -- he's a doctor, but I 15 don't think he mentioned him. 16 MR. FROST: 17 Okay. 18 MS. O'DELL: 19 So you might ask an open-ended 20 question. 21 Or, if you understand it, please -- 22 A I -- I understand what you're asking. 23 MR. FROST: 24 Q Sure.</p>
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<p>1 Q So you agree with me it looks like, 2 you know, you don't have the complete set of 3 testing data, for example? 4 MS. O'DELL: 5 Object to the form. 6 A I would say that -- that it may be that 7 I have everything that's available. It may be 8 that a lot of these results don't exist in 9 anybody's files anymore. 10 MR. FROST: 11 Q But you can't tell me one way or the 12 other, without speculating, as to whether or not 13 any of those additional testing samples, testing 14 documents, records, et cetera, exist in the 15 documents produced by the two companies in this 16 case and just weren't provided to you by counsel; 17 correct? 18 A I have no idea. 19 Q Okay. Now, you had talked about a 20 couple of the depositions. I also note in your 21 report I think you -- you referenced the 22 deposition of Mr. -- or Dr. Downey in your 23 report. Other than what you've disclosed in -- 24 in the report and the three you've talked about</p>	<p>1 A There's a list of depositions that I -- 2 I have looked at that's in this list of materials 3 considered. 4 And there's Hopkins. It's footnoted in 5 my report. 6 Julie Pier, I've looked at hers. 7 I've looked at Alice Blount's. 8 There's one that I looked at a long 9 time ago. I can't -- can't even remember the 10 person's name, and it -- it had little relevance 11 to what we're doing. 12 Hopkins, Downey, Blount, Glassley, 13 which I mentioned. 14 There may -- I think there's at least 15 one more that's -- that's actually in my list of 16 materials considered. 17 Q Okay. But it would be -- it would -- 18 it would be listed in the materials considered? 19 A Yes. 20 Q It's just the three, the Gunter, 21 Sanchez and Gassley, that -- 22 A Glassley. 23 Q -- weren't listed? 24 Glassley?</p>

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<p style="text-align: right;">Page 42</p> <p>1 MS. O'DELL: 2 I think Glassley was listed. 3 MR. FROST: 4 Oh, was he? 5 MS. O'DELL: 6 Yeah. 7 MR. FROST: 8 Q Have you reviewed any of the 9 depositions of the other experts in this talc 10 MDL? 11 A I don't know. 12 Oh, the depositions? 13 Q Yes. 14 A I'm not sure about who was -- 15 When you say the MDL -- 16 Q In this particular case. 17 A Oh. 18 Q Any of the other experts from 19 plaintiffs' counsel in this case? 20 A I think we've got them listed. 21 Q Have -- other than the -- 22 I'll ask this a different way. We've 23 been taking depositions of various plaintiffs' 24 experts for the past about month.</p>	<p style="text-align: right;">Page 44</p> <p>1 Q And you've reviewed these while they 2 were in draft form? 3 MS. O'DELL: 4 Object to the form. 5 A I don't know whether they were draft 6 form or not. They were -- they were in good 7 shape in terms of grammar and punctuation. I 8 would have -- I would have certainly thought they 9 were close to final. 10 MR. FROST: 11 Q Did you review these prior to 12 finalizing your initial report? 13 A No. 14 Q Have you reviewed these after the 15 initial report? 16 A Yes. 17 Q Did you review these before the -- 18 issuing the second report? 19 A Yes. 20 Q The amended? 21 In reviewing the -- the Smith, 22 Zelikoff, Campion, and Krekeler reports, did that 23 at all influence any of the opinions or any of 24 the analysis you did in the amended report?</p>
<p style="text-align: right;">Page 43</p> <p>1 A Uh-huh. 2 Q Have you seen or read any of those 3 transcripts? 4 A No. 5 Q Okay. And you're aware that plaintiffs 6 served other expert reports, like yours, in -- in 7 November? 8 A Yes. 9 Q And then some in January? 10 A Yes. 11 Q Have you reviewed any of those reports? 12 A I looked at a -- a draft of Krekeler 13 and Campion. I'm assum- -- I don't know whether 14 he's been deposed or not. And there were -- 15 there were two others who were really related to 16 generating summaries of published literature. 17 But Campion's was interesting since it was a 18 Raman spectra deposition or expert report. 19 Q Do you recall who the other two were? 20 A No. Believe it or not, one of them's 21 name was Smith, and the other one had a foreign 22 name. 23 Q Would that be Dr. Zelikoff? 24 A Yes.</p>	<p style="text-align: right;">Page 45</p> <p>1 A It did not. I -- I was a little bit 2 intrigued with the Campion, the Campion report. 3 It made me think that that was a field of 4 potential research. I didn't realize that -- 5 that the Raman approach could be as useful as it 6 might be. 7 Q Was this more a, you know, sort of 8 piqued your interest or personal curiosity -- 9 A Yeah. Right. 10 Q -- as opposed to the opinions you're 11 rendering in this case? 12 A Yes. 13 Q I take it you've done work with Raman's 14 spectrograph? 15 A I have sort of steered clear of it. We 16 didn't have a machine on campus, and so I 17 didn't -- I wasn't as familiar with it as I 18 probably should have been. And then I read his 19 report, and I -- and it's pretty interesting. 20 Q And you noted that you looked at a 21 draft of Krekeler's report. 22 A Correct. 23 Q Did you have any comments to that 24 draft?</p>

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<p style="text-align: right;">Page 46</p> <p>1 A There were two drafts that I looked at.  2 I looked at an early one and a final one. The --  3 the -- the parts that I thought were --  4 MS. O'DELL:  5 Dr. Cook --  6 THE WITNESS:  7 Yes.  8 MS. O'DELL:  9 -- To the degree that you're -- that  10 there were any discussions, those are not  11 something that I -- I would instruct you not to  12 testify to discussions --  13 THE WITNESS:  14 I understand.  15 MS. O'DELL:  16 -- with plaintiffs' counsel.  17 THE WITNESS:  18 Understand.  19 I felt that they were in depth and --  20 and that -- that what he had to say was -- was  21 good in -- in a lot of areas.  22 MR. FROST:  23 Q Okay. Do you offer any comments to  24 Dr. Krekeler's report?</p>	<p style="text-align: right;">Page 48</p> <p>1 because I work closely with a man named  2 John Rakovan, who is probably his boss. He's  3 a -- John is also a professor at Miami of Ohio.  4 And I had -- when they were considering Krekeler,  5 I -- you know, I checked -- checked with John  6 Rakovan about him, and he got a nice clean bill  7 of health. So I kind of knew who he was going  8 into this.  9 Q Did you offer any written comments --  10 A No.  11 Q -- to either of the two drafts?  12 A I don't think I did.  13 Q Okay. Did you discuss any comments to  14 the drafts with plaintiffs' counsel?  15 A I probably did.  16 Q Do you remember what areas of his  17 report those comments would have been about?  18 A They were -- I think that they weren't  19 really about areas of his report. They were --  20 they were more about he's gone into great detail  21 here. Probably it's, you know, irrelevant, he  22 needs to shorten it, that type of thing.  23 I looked at his report as if I was  24 looking at a student's report and what I would do</p>
<p style="text-align: right;">Page 47</p> <p>1 A In -- like in writing?  2 MS. O'DELL:  3 Same instruction.  4 THE WITNESS:  5 Yeah.  6 Not really.  7 MR. FROST:  8 Q Okay. By "not really," does that mean  9 that, you know, none as far as writing and  10 content, or did you have some comments in the  11 report that you then conveyed?  12 A Well, I mean, if you're gonna read  13 something, so -- you're gonna end up discussing  14 it in some way. You know, if you don't, then  15 why -- why bother reading it if it's not gonna  16 enter into the bigger picture?  17 But -- but, no. I mean, I wasn't -- I  18 wasn't asked to sit down and carefully critique  19 either one of those reports. And I certainly  20 think that he -- he pointed out some important  21 things that -- that -- that should be considered.  22 Q Do you know why you were asked to  23 review drafts of Dr. Krekeler's report?  24 A No. But -- but I think that it may be</p>	<p style="text-align: right;">Page 49</p> <p>1 to, you know, to make it easier to read, more  2 understandable. I mean, I thought that he --  3 that his first draft was -- was probably way more  4 than was needed.  5 Q And other than grammatical things and  6 things that relate to length, did you have any  7 substantive comments about the contents of his  8 report?  9 A I liked -- I liked --  10 MS. O'DELL:  11 Dr. Cook, to the degree that those  12 comments were discussions that you had with me --  13 THE WITNESS:  14 Right.  15 MS. O'DELL:  16 -- or plaintiffs' counsel, they're not  17 entitled to ask you that question, and, so, I'm  18 instructing you not to convey those comments.  19 THE WITNESS:  20 Okay.  21 MR. FROST:  22 We disagree. And you can raise it, but  23 we think, you know, any communications between  24 experts, including whether they're filtered</p>

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<p style="text-align: right;">Page 50</p> <p>1 through counsel or not, are subject to 2 disclosure. But we can deal with that at a later 3 time if you're instructing him not to answer. 4 THE WITNESS: 5 Yeah. 6 MS. O'DELL: 7 And to the -- 8 Excuse me. 9 To the degree that there is a comment 10 that you've made to me or -- or other plaintiffs' 11 counsel, then -- then that's something that I'm 12 instructing you not to testify to. 13 THE WITNESS: 14 Right. 15 MS. O'DELL: 16 So if there's -- so -- 17 THE WITNESS: 18 You're not asking if I've had direct 19 contact with Krekeler, are you? 20 MR. FROST: 21 Q Asking that next, but -- 22 A Well, I haven't. 23 Q Okay. 24 A And -- and I personally think that</p>	<p style="text-align: right;">Page 52</p> <p>1 Q So there's no reason to flip through 2 Exhibit 1 at this point. Exhibit 2 -- 3 A No. 4 Q -- contains your opinions. 5 Okay. If you could turn to page 38 of 6 your amended report at the very bottom. 7 A Okay. Okay. Got it. 8 Q I take it this is the reference you're 9 talking about, the "normally expected failure or 10 rejection rates were not observed, as discussed 11 in detail in the expert report of Krekeler 12 (2018)? 13 A That's correct. 14 Q Okay. And I take it, other than this 15 reference, you know, you yourself have no 16 opinions about the -- whether or not failure 17 rejection rates were correct? You're deferring 18 to Krekeler for that? 19 A I'm deferring to him. I have an 20 opinion, you know, but I don't -- I don't have 21 the strength of knowledge to support my opinion. 22 Q Okay. 23 A But I defer to him because I believe he 24 does.</p>
<p style="text-align: right;">Page 51</p> <p>1 there was some -- some important things that he 2 pointed out. And whether or not I mentioned them 3 to Miss O'Dell or not, I don't know. But I 4 certainly, in reading his final draft, I thought 5 there were some interesting things in there. 6 They weren't things that I had addressed myself, 7 and I thought they were good. 8 Q Is there anything in the Krekeler 9 drafts that you included in your report because 10 you had read through his? 11 A I only mentioned and actually deferred 12 to him the concept of sampling frequency, the -- 13 the expected failure rate of samples that -- 14 He had references to all of that and 15 pointed out that that seemed to be something 16 that -- that was contrary to expectation. And, 17 so, I pointed that out. But I refer completely 18 to him. 19 Q If you turn -- 20 Actually, this is a good point. I take 21 it by -- I take it your intention was that the 22 amended report in Exhibit 2 would take the place 23 of the original report in Exhibit 1? 24 A Yes.</p>	<p style="text-align: right;">Page 53</p> <p>1 Q Yeah. So you haven't done any 2 independent statistical analysis or anything like 3 that regarding rejection rates? 4 A No. 5 Q Do you believe there's anything in your 6 report that you accidentally copied from a site 7 that you didn't either put quotes around or put a 8 proper citation to? 9 A I hope not. I mean, there could be, 10 but I would hope that there wouldn't be. 11 Q If you turn to page 9 of your report. 12 Specifically, I'll direct your attention to 13 Footnote 12. 14 A Okay. 15 Q Do you know where you got this 16 information from? 17 A This was probably pulled out of perhaps 18 AGI glossary or one of the -- one of the AIME 19 references. 20 Q Are you familiar with the website of a 21 company called Rishabh Metals &amp; Chemicals? 22 A No. 23 Q I'll mark this as Exhibit 6. 24 I believe we're on 6; right?</p>

14 (Pages 50 to 53)



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<p style="text-align: right;">Page 54</p> <p>1 THE COURT REPORTER:  2 Yes, we are.  3 (DEPOSITION EXHIBIT NUMBER 6  4 WAS MARKED FOR IDENTIFICATION.)  5 MR. FROST:  6 Q I'd like to turn your attention to what  7 is on the printout -- 1, 2, 3, 4, 5, 6 -- page 7.  8 A I'm not sure that I haven't seen this  9 on the Internet.  10 Q If you look under "or beneficitation."  11 A Sure.  12 Q And do you agree with me that what's in  13 the report appears to be a quote --  14 A Sure.  15 Q -- from this website?  16 A It'd be nice to know where they got  17 their definition. Seriously.  18 Q Okay. But do you believe that you saw  19 this website while you were drafting your report?  20 A You know, when you -- when you  21 mentioned the name, it didn't ring a bell. But I  22 believe I have seen this.  23 Q Okay.  24 A But I don't -- I don't know the</p>	<p style="text-align: right;">Page 56</p> <p>1 the things in the table I described -- you know,  2 every single reference I had described verbally.  3 And then when I saw the table that was being  4 prepared, I guess, in Hopkins, it was pretty  5 clear that, oh, my God, this is -- you know, I  6 need to do this with -- with every data set, go  7 ahead and make tables.  8 And, so, Beasley Allen folks helped  9 construct the -- I guess it was an Excel table.  10 Q These are the tables that are --  11 A Yeah. But that's it. Everything else  12 is -- is --  13 And if -- I'm just thinking about the  14 Zelikoff thing. I did get a -- I did get a  15 reference out of hers. But that's all I  16 remember.  17 Q Okay. And by "the tables," you're  18 referring to the various tables that appear --  19 you know, some start on page 13.  20 A The tables have replaced very long  21 paragraphs that describe each one of these -- for  22 the most part, each one. Some of them, the ones  23 from the Hicks -- not Hicks -- the Hopkins depo,  24 some of those I didn't have until I got his depo.</p>
<p style="text-align: right;">Page 55</p> <p>1 company.  2 Q All right. Mark this as Exhibit 7,  3 please.  4 (DEPOSITION EXHIBIT NUMBER 7  5 WAS MARKED FOR IDENTIFICATION.)  6 MR. FROST:  7 Q Do you recognize this as the expert  8 report of Dr. Judith Zelikoff that you reviewed?  9 A I only have it online.  10 Q Okay.  11 A But I'm assuming it is the same.  12 Q Okay. If you could please turn to page  13 31 of your report.  14 A Of my --  15 I'm sorry. I'm going to hers.  16 Q And I guess I'll start here. Did  17 anybody help you write your report?  18 A No.  19 Q You wrote all of it yourself?  20 A Every word. There was help with --  21 with the tables. My report was table-less  22 initially.  23 Q Okay.  24 A And it was extremely cumbersome because</p>	<p style="text-align: right;">Page 57</p> <p>1 Q Okay. Did you put together the tables  2 or was that something that Beasley Allen --  3 A No. They helped.  4 Q -- put together for you?  5 A They helped.  6 Q And I take it, when they sent you the  7 tables, it sounds like there were additional  8 references in there that originally you didn't  9 have or didn't review?  10 A There -- there were not.  11 Q Okay.  12 A I don't think that there were. The  13 ones that -- that were related to the Hopkins  14 exhibits, I had them, but I think I got them  15 after I had prepared my first draft, something  16 like that. And so they are -- they were new, new  17 to the second edition.  18 Q Were there any references when you  19 reviewed the tables that you hadn't seen prior to  20 the tables being generated by Beasley Allen?  21 A I don't think so. I didn't -- I -- I  22 didn't notice any. But there are like a  23 hundred-and-something references just in the  24 table that deals with asbestos.</p>

15 (Pages 54 to 57)

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<p style="text-align: right;">Page 58</p> <p>1 Q And, so, I compared the -- you know, 2 the report in Exhibit 1 to the report in Exhibit 3 2. It looks like a lot of the changes that were 4 made were within the tables. Does that sound 5 correct? 6 A It -- there could have been, sure. 7 Q What type of changes were made to 8 Table -- 9 Well, strike that. 10 Did -- were these changes that you made 11 or were these changes that were made by Beasley 12 Allen? 13 A I went through the table in one and 14 found a goodly number of things that I thought 15 were wrong, but they were -- some of them were 16 spellings that were related to probably 17 spellchecker, like the word "Cyprus" for Cyprus 18 Corporation was misspelled a number of times. 19 There were some incidences where I 20 questioned whether the right terminology was used 21 for mineralogy, for a mineralogical citation. 22 And, you know, we keep going back 23 through these tables, and there's -- I think 24 there may be one sample in the asbestos that may</p>	<p style="text-align: right;">Page 60</p> <p>1 A I think so. 2 Q -- report? 3 Okay. So these weren't new lists that 4 were sent to you by Beasley Allen? 5 A No. No, no. 6 Q And have you reviewed all of the 7 documents that are in each of the charts? 8 A I think I have. 9 Q And I note that your charts are -- I'm 10 not gonna say exactly the same, because, 11 actually, your amended ones change some of the 12 language, but they're materially similar to those 13 showing up in the report of Dr. Krekeler. Have 14 you had a chance to review the charts in his 15 reports? 16 A I've seen a version. I don't know 17 whether it was his latest version. And, yeah, 18 he -- he had -- I mean, that was the whole idea. 19 We've got -- now we've got charts to replace long 20 paragraphs. And, so, they should be similar. 21 Q Okay. And this was the work done by 22 Beasley Allen? 23 A In terms of -- 24 MS. O'DELL:</p>
<p style="text-align: right;">Page 59</p> <p>1 not actually be a cosmetic -- or in the talc that 2 may not be a cosmetic talc. 3 Q Okay. Do you -- do you recall which 4 one that would be or -- 5 A No. 6 Q -- do you have the ability to identify? 7 Okay. 8 A It was a -- it had a number. It was a 9 numerical sample number. 10 Q And were these changes, then, that you 11 made to the -- 12 A I don't think -- 13 Q -- charts that were prepared? 14 A I don't think -- they were intact, and 15 I didn't notice that until a day or two ago. 16 Q Okay. The other changes that were made 17 between the original report and the amended 18 report, were these changes that you made in going 19 through the original report and correcting the 20 spellings? 21 A Tried to, yes. 22 Q Okay. And are you the one who made all 23 of the changes to the reports that show up now in 24 the amended --</p>	<p style="text-align: right;">Page 61</p> <p>1 Object to the form. 2 A Right. In terms of the compilation of 3 the charts, I mean, I'm pretty sure a secretary 4 did it. 5 MR. FROST: 6 Q Okay. And then they sent it to you for 7 inclusion in the report? 8 A Yes. 9 MS. O'DELL: 10 Object to the form. 11 MR. FROST: 12 Q All right. So turning to page 31 of 13 your report. 14 A Yes. 15 Q See the paragraph at the top of 31, it 16 says -- it's starts with the "According to J&amp;J's 17 corporate representative." 18 A Right. 19 Q Do you know where you got this 20 information from? 21 A Yes. 22 MS. O'DELL: 23 Which one are you -- 24 MR. FROST:</p>

16 (Pages 58 to 61)

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Page 62	Page 64
<p>1 The top paragraph in 31, the "According 2 to J&amp;J's corporate representative." 3 A I think that that's in a deposition. 4 Q Can you turn to page 11 of 5 Dr. Zelikoff's report? 6 A Okay. 7 Q Third paragraph down, starts "According 8 to Johnson &amp; Johnson's corporate representative." 9 A Right. 10 Q And I'll just let you review the two. 11 Do you agree with me that these two paragraphs 12 are almost exactly the same? 13 MS. O'DELL: 14 Object to the form. 15 A Well, I can tell you that I wrote mine 16 before she wrote -- or before I ever saw hers. 17 MR. FROST: 18 Q Okay. 19 A So, you know, if they're similar, okay. 20 But, you know, I didn't receive hers until maybe 21 a month ago. 22 Q Okay. So you certainly would -- didn't 23 read and rely on Dr. Zelikoff -- 24 A No.</p>	<p>1 Q -- or the one preceding it that we 2 talked about? 3 A No. 4 Q I'm gonna show you one more on page 34 5 of your report, please. Do you see the paragraph 6 that's above "Cobalt"? 7 A Yes. 8 Q Okay. And then the paragraph right 9 above that, I think it's the second-to-last 10 sentence, starts "Interestingly, there is 11 significant difference between." 12 A Okay. 13 MS. O'DELL: 14 I'm sorry. Where -- where are you, 15 Jack? Excuse me. 16 MR. FROST: 17 It's page 34, so it's the full 18 paragraph above "Cobalt" and then the last two 19 sentences in the paragraph above that. It 20 starts, "Interestingly, there is significant 21 difference." 22 MS. O'DELL: 23 Okay. 24 MR. FROST:</p>
Page 63	Page 65
<p>1 Q -- in order to draft your -- your 2 portion of the report? 3 A No. 4 Q If you can turn to page 32 of your 5 report, the second paragraph that says -- starts 6 "Talc mine in Vermont." 7 A Okay. 8 Q Okay. Again, if you can look at 9 Dr. Zelikoff's page 11. 10 A Okay. 11 Q And it's the fourth paragraph down. If 12 you can read those two. 13 Do you agree with me that they're 14 almost exactly the same again? 15 A Yep. 16 MS. O'DELL: 17 Object to the form. 18 MR. FROST: 19 Q And, again, you weren't relying on 20 Dr. Zelikoff to draft your report? 21 A No. 22 Q And plaintiffs' counsel didn't provide 23 you this paragraph -- 24 A No.</p>	<p>1 Q Okay. And looking back again at pages 2 11 and 12 of Dr. Zelikoff's report -- 3 A That's interesting, because this is 4 a -- something that was in my original report. 5 Q Okay. Yeah. I was gonna say, 6 actually, I -- I will say all of this information 7 was in your original report. 8 A Yeah. I mean, I -- maybe she got ahold 9 of it. I don't know. 10 Q Okay. 11 A But I certainly didn't take anything 12 out of hers. 13 Q All right. And you'd agree with me, if 14 you look at page 11 to 12 -- 15 A Right. 16 Q -- again, the same language -- 17 A Right. 18 Q -- shows up? 19 MS. O'DELL: 20 Object to the form. 21 MR. FROST: 22 Q Okay. And -- 23 MS. O'DELL: 24 Excuse me. Just give me a minute --</p>

17 (Pages 62 to 65)

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<p style="text-align: right;">Page 66</p> <p>1 not a minute, actually -- a second to object if I 2 need to. 3 THE WITNESS: 4 I'm sorry. 5 MS. O'DELL: 6 No worries. 7 MR. FROST: 8 Q So you certainly didn't take 9 Dr. Zelikoff's report to draft yours; correct? 10 A Certainly not. 11 Q And the -- the language in these 12 various paragraphs I pointed out weren't provided 13 to you by plaintiffs' counsel? 14 A No. 15 Q Okay. And you don't know how they 16 ended up in Dr. Zelikoff's report? 17 A I have no earthly idea. 18 Q Okay. Thank you. I'm done with 19 Dr. Zelikoff's. You can put that to the side. 20 I will say, may as well keep your -- 21 As we go through today, I'm sort of 22 going to reference your report. 23 A Sure. 24 Q So you may as well keep Exhibit 2 close</p>	<p style="text-align: right;">Page 68</p> <p>1 of -- of the Italian talc deposits. 2 Q Okay. 3 A And -- and, you know, and that was an 4 interesting search. There is new -- there is new 5 data. 6 Q Do you remember where you searched for 7 the geology of the Italian deposit? 8 A It was just Google searches. Putting 9 in Val Chisone or Val Germanasca talc, You -- you 10 begin to get lots of hits. And there -- there 11 are a couple of recent papers that are pretty 12 good. 13 Q And I believe -- I think you cite 14 Mindat.org? 15 A Yes. 16 Q And that's -- that's the types of 17 things you were searching through on the 18 Internet? 19 A Well, Mindat.org is -- that's sort of 20 an interesting website. It -- it originated in 21 Poland, and the amount of work that's gone into 22 that is -- is unbelievable, because there's only 23 a couple of guys that did this. 24 And the value of Mindat.org is that,</p>
<p style="text-align: right;">Page 67</p> <p>1 by -- 2 A Okay. 3 Q -- as we'll be walking through that as 4 the day progresses. 5 A Okay. 6 Q And we had already talked about it 7 before, but it seems like you did -- is it fair 8 to say that you did investigation of your own 9 library to find some of the reference material 10 you cite in your report? 11 A Yes. 12 Q Other than looking through your 13 physical library, did you do any other type of 14 research? Did you go to a research library, 15 Internet, anything like that? 16 A For the most part, there was no reason 17 to. I've got a complete set of American 18 Mineralogist back to day one, complete set of 19 Economic Geology to day one, complete set of 20 Bibliography of North American Geology. And 21 everything that the USGS has done, I have a copy 22 of. I mean, I had 5,000 books. 23 And, so, the only thing I really -- I 24 really did on the Internet was search for geology</p>	<p style="text-align: right;">Page 69</p> <p>1 for many of the localities where they'll 2 attribute a mineral to, they'll list the 3 reference. So it's a darn good place to go find 4 references. 5 Q It's a great place to start? 6 A Yeah. It's a really good place to 7 start. And -- and they've won awards, worldwide 8 awards, for that particular site and the amount 9 of work they've had to put into it. 10 Q And you've already told me nobody 11 helped you draft your report. Did anybody help 12 you do the research? 13 A No. 14 Q You didn't use any graduate students 15 or -- 16 A No. No. No, no, no. 17 Q Okay. All right. And we -- we've 18 covered a little bit of this, but your 19 background, do you consider yourself a geologist, 20 a mineralogist? What -- how do you define your 21 expertise? 22 A Well, you know, I started out as a 23 mining engineer. So my original educational 24 background was in mining engineering. And then I</p>

18 (Pages 66 to 69)

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<p style="text-align: right;">Page 70</p> <p>1 was lucky enough to get to go on in graduate  2 school at Georgia in geology. And, so, I'm  3 really both. I'm a mining engineer. I'm not a  4 registered engineer. I should have gone ahead  5 and done that, but I didn't. But I am, of  6 course, a registered geologist in -- in a number  7 of states.  8 Q I was gonna say, I believe you're  9 registered in Georgia, Florida, and Alabama?  10 A Right. Those are the -- the three good  11 ones.  12 Q All right. And you're not a medical  13 doctor; correct?  14 A I'm -- I'm certainly hoping I'm not.  15 Q Right?  16 A No, I'm not.  17 Q And you're not a toxicologist?  18 A No.  19 Q And you don't hold a degree in either,  20 you know --  21 Medical doctor is a terrible way, but  22 you don't hold an M.D. or a degree as a  23 toxicologist; correct?  24 A No. No.</p>	<p style="text-align: right;">Page 72</p> <p>1 fines, MSHA fines, I'm probably an expert.  2 Q Okay. Have you ever done any -- any  3 research or publication regarding mine  4 regulations?  5 A In terms of research, yes. But -- but  6 in a practical sense, I mean, I -- I have an  7 interest in three operating mines, so -- so I  8 have to try to stay on top of this.  9 Q Okay. Have you ever participated in  10 the regulatory process either with, you know, the  11 SEC, JORC, any of the other regulatory agencies?  12 A No. But I have tried to supply  13 students to the regulatory agencies, and -- and I  14 have a number that -- that are -- are pretty high  15 up. One of mine is very high up in EPA right  16 now. And I am kind of proud of them. I've got  17 three or four that are really doing well.  18 Q Okay. But you yourself have never --  19 A Well --  20 Q -- been part of that process?  21 A Well, they send me consulting work.  22 Q Okay.  23 A Why do you think I pointed them in that  24 direction?</p>
<p style="text-align: right;">Page 71</p> <p>1 Q And you have no formal training in  2 either what I'll call human medicine or  3 toxicology?  4 A No.  5 Q Do you consider yourself a regulatory  6 expert?  7 A 40 CFR is -- I mean, I -- I understand  8 some of it, and I've certainly worked with it.  9 When -- when the RCRA law first came  10 out, I was -- I was into that very deep. And  11 today, probably not, except in very specific  12 areas.  13 Q Would one of -- do you consider your --  14 yourself an expert in the regulatory process of  15 talc mining or talc ore?  16 A I'm not sure that -- that there really  17 is a regulatory issue related to talc mining that  18 -- that's unique. There are certainly  19 regulations related to that type of mining, and I  20 -- I'm familiar with them.  21 Q Okay. Is it just a familiarity, or  22 would you consider yourself an expert in the --  23 the regulations regarding that type of mining?  24 A In that I have had to suffer through</p>	<p style="text-align: right;">Page 73</p> <p>1 Q Well, sure.  2 Other than sending you consulting work,  3 you know, you've never testified before any of  4 the bodies or --  5 A Well --  6 Q -- given any comments --  7 A -- I've testified relative to,  8 you know --  9 Yes, I've testified relative to  10 litigation in terms of the mining impact on  11 private properties.  12 Q Okay. Have you ever testified at any  13 of the hearings regarding regulations or  14 commented on the regulatory process?  15 A The only one that I formally commented  16 on was the SOAP program, which was called the --  17 the Small Operator Assistance Program, that was  18 put in place probably in the late '70s. And it  19 may not even exist anymore. But it was a way  20 that small mining companies could get federal  21 assistance so that they -- they were able to  22 comply with new environmental regulations. And I  23 actually participated in that.  24 Q Okay. Have you ever formally commented</p>

19 (Pages 70 to 73)



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<p style="text-align: right;">Page 74</p> <p>1 on any regulations regarding, you know, for  2 example, requirements of drilling, requirements  3 of sampling and compositing, anything of that  4 nature?  5 MS. O'DELL:  6 To regulatory agencies?  7 MR. FROST:  8 Q To regulatory agencies.  9 A I've had discussions with regulators.  10 Q But no formal comments?  11 A No, no.  12 Q Have you ever worked with talc before?  13 A Yes.  14 Q When was that?  15 A Well, first thing I ever did with talc  16 was to get money to live on. I sold talc when I  17 was between my -- my graduation date at the  18 School of Mines and when I started at Georgia.  19 There was a company that was trying to  20 buy talc to put into kits that they were selling,  21 mineral kits. And, so, they -- they sent me a  22 list of materials they wanted, and talc was right  23 at the top.  24 So I knew some of the talc locations in</p>	<p style="text-align: right;">Page 76</p> <p>1 So, from that standpoint, I have a  2 pretty good background into the geology of that  3 type of talc occurrence, keeping in mind that  4 that isn't the only type.  5 Q Uh-huh.  6 A But I have done work for companies that  7 are exploring for talc.  8 In fact, I just recently -- I -- I had  9 to relog some drill core and redo some thin  10 sections for a company that -- that had  11 undertaken a talc project as a consultant and  12 then they were unable to do it. They -- they  13 weren't sure what they were doing.  14 You know, we -- I'm sure we'll mention  15 Alice Blount. She -- she was interested in the  16 talc deposits at Winterboro, Alabama, and I had  17 drilled them with a -- a company and had also  18 designed an exploration program for additional  19 talc deposits at Winterboro which were carried  20 out.  21 But Dr. Blount wanted to look at the  22 drill core. And -- and I was actually the one  23 that pulled the boxes for her and showed her the  24 intervals that she wanted to show and -- and</p>
<p style="text-align: right;">Page 75</p> <p>1 Georgia, and so I went and began to pick through  2 the mine dumps looking for lumps of talc that  3 made it onto the dumps. That was my first  4 experience with talc.  5 But, since then, it -- it's gone a long  6 way. I mean, I'm looking at ultra -- ultramafic  7 rocks right now in a project that we actually key  8 in on talc and asbestos occurrences. But we're  9 looking for nickel and -- and precious metals  10 associated with them. And this has grew out of  11 some work I did for the US Geological Survey.  12 Six of us put together one of their professional  13 papers, number 1475, which was a paper that  14 discussed the -- the evolution of -- of the  15 eastern part of the US, specifically Georgia and  16 Alabama.  17 But what we came up with was a -- a  18 much broader picture that would allow a  19 connection all the way up the Eastern Seaboard,  20 even into Vermont and on into Canada, that showed  21 the relationship of ultramafic rocks to the  22 development of the eastern part of the US. And  23 that has -- you know, people are still citing it,  24 cursing it and citing it.</p>	<p style="text-align: right;">Page 77</p> <p>1 would turn my back when she took a sample, that  2 kind of thing. So...  3 Q All right.  4 A So, anyway...  5 And -- and I've been working -- working  6 on talc projects all along since -- since I got  7 out of school.  8 Q Okay. Have you ever published anything  9 other than this -- the USGS paper regarding talc?  10 A Yes. The -- I wrote the mineralogies  11 for both Georgia and Alabama, and there are  12 sections on talc in both of those.  13 Q And other than the two books you  14 published, is there anything else that you  15 published, peer-reviewed?  16 A I'm absolutely sure that there are.  17 I'm -- I'm an executive editor for a magazine  18 that publishes Geographic Mineralogy, and I've  19 edited many papers dealing, in part, with talc  20 for that journal. So...  21 But in terms of have I -- have I  22 discussed talc in any other papers? I'm sure,  23 yes. I mean, you've got my -- my vita.  24 Q Uh-huh.</p>

20 (Pages 74 to 77)

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<p style="text-align: right;">Page 78</p> <p>1 A And, I mean, there's a lot of pages in 2 there. I'd have to go through them one by one 3 and think back and, you know, "Did I mention 4 talc?" 5 The problem with this is that I've done 6 petrographic work for probably 25 or 30 quarries. 7 And -- and this is done routinely. 8 I mean, some of these quarries I've 9 done the work maybe four or five times because 10 they do it ann- -- maybe not annually but maybe 11 every couple of years, just to make sure that 12 their product does not contain asbestos. 13 Q Uh-huh. 14 A And, so, talc is not that rare of a 15 mineral. And, so, I'm sure that, in some of 16 those reports, I'm -- I'm mentioning, "Yep, 17 you've got .03 percent talc in your product." 18 Q I guess a better way to ask this 19 question, have you ever published any literature 20 that expressly focuses on talc, as opposed to 21 just mentioning it within the paper? 22 MS. O'DELL: 23 So solely on talc. 24 MR. FROST:</p>	<p style="text-align: right;">Page 80</p> <p>1 Q I think I've read that amphiboles make 2 up a -- it's a creepy percentage. It's like 10 3 or -- 4 A I -- I saw that, and I questioned it. 5 MS. O'DELL: 6 Let him finish, Doctor. 7 THE WITNESS: 8 Okay. 9 MR. FROST: 10 Q I was gonna say, have you ever read 11 anything about, you know, sort of how abundant 12 amphiboles are? 13 MS. O'DELL: 14 Object to the form. 15 A Yes. 16 MR. FROST: 17 Q Okay. Do you agree with me the -- 18 especially throughout the Eastern United States, 19 the Appalachian Belt, things like that, 20 amphiboles are extremely common? 21 A They are. They -- they occur generally 22 in belts of rocks. You know, when -- when you 23 see the -- the number that you're referring to, 24 I -- I read that, and I said, "Holy criminy,</p>
<p style="text-align: right;">Page 79</p> <p>1 Q Yes, solely on talc or where talc is 2 one of the main -- it wouldn't be solely, but, 3 you know, where talc is the main focus of the 4 paper or the research. 5 A I'm gonna say no, but -- but maybe I 6 might think of one or two -- 7 Q Okay. 8 A -- as we -- as we go along. 9 Q If you do, let me know. 10 Have you ever published anything 11 regarding amphiboles directly? 12 A Yeah. The -- the same story is true 13 there because, I mean, amphiboles are -- are 14 exceedingly common, and I probably -- I probably 15 have 50 publications that deal with amphiboles. 16 Q That deal with amphiboles specifically? 17 A Yeah. Yeah. They'll be -- well, the 18 problem with amphiboles is they're such a 19 common -- the family is so common that -- that if 20 you're gonna go out in the crystalline rocks of 21 the Eastern US, you're gonna find amphibolites or 22 rocks that contain amphiboles. And, then, if 23 you're gonna write -- write the paper, you -- you 24 describe them.</p>	<p style="text-align: right;">Page 81</p> <p>1 this -- this just can't be right." 2 But, then, if -- if you begin to think 3 about the shallow crust, a great -- a large 4 percent of it is really oceanic crust. And 5 amphiboles and related mafic minerals are very 6 common in the oceanic crust. And, of course, 7 that underlies the continents, so... 8 Q Have you ever done any testing of talc? 9 A In terms of, like, brightness, density, 10 no. 11 Q Okay. 12 A I -- I've certainly described talc, 13 you know, optically in thin section. 14 Q What do you mean by "described" it? 15 A You know, if it occurs in a rock, I 16 would describe grain size, relationship to 17 adjacent mineral grains, that type of thing. 18 Q Okay. What about amphiboles? Have you 19 ever done any specific testing on amphiboles? 20 MS. O'DELL: 21 Object to the form. 22 A Let me back up. I've x-rayed talc 23 in -- in years past, and I've certainly x-rayed a 24 lot of amphiboles.</p>

21 (Pages 78 to 81)



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<p style="text-align: right;">Page 82</p> <p>1 MR. FROST:</p> <p>2 Q And by "x-ray," are you talking about</p> <p>3 XRF or XRD?</p> <p>4 A XRD.</p> <p>5 Q And was this related to academics, or</p> <p>6 was this related to the work you were doing with</p> <p>7 some of the mining companies?</p> <p>8 A Academics.</p> <p>9 Q And was this for mineral identification</p> <p>10 purposes?</p> <p>11 A Mainly.</p> <p>12 Q Did you ever publish any of your</p> <p>13 mineral identification XRD work on either talc or</p> <p>14 amphiboles?</p> <p>15 A A lot of it is published but without</p> <p>16 reference to the analytical technique.</p> <p>17 I mean, I -- when you're -- when you're</p> <p>18 writing a paper, you can't describe how you</p> <p>19 identified every single mineral grain in every</p> <p>20 single sample. I mean, it's just impossible.</p> <p>21 But it was very common to -- to run</p> <p>22 confirmatory x-ray diffraction analyses on</p> <p>23 samples that we thought we knew what we had.</p> <p>24 "Let's -- let's check and make sure."</p>	<p style="text-align: right;">Page 84</p> <p>1 study for about six or eight of their quarries.</p> <p>2 But they were -- you know, they were concerned,</p> <p>3 like everybody is, is quarrying something out of</p> <p>4 the ground that -- that, you know, when you're</p> <p>5 producing a couple million tons a year out of a</p> <p>6 single hole in the ground in hard rock that's of</p> <p>7 a metamorphic grade that might have asbestos</p> <p>8 minerals, you want to know whether or not you've</p> <p>9 got something.</p> <p>10 Q Okay.</p> <p>11 A And, so, I did the work for Oldcastle,</p> <p>12 and they have a whole series of reports that I</p> <p>13 did for them that -- that outline the absence of</p> <p>14 asbestos.</p> <p>15 Q Okay. And Oldcastle, I looked them up.</p> <p>16 I believe they're a gravel quarry? Is that -- is</p> <p>17 that fair?</p> <p>18 A No.</p> <p>19 Q Okay.</p> <p>20 A They're one of the largest construction</p> <p>21 materials company in the world. They own the</p> <p>22 Bank of Scotland. That's where the word</p> <p>23 Oldcastle comes from. They're a Scottish</p> <p>24 company --</p>
<p style="text-align: right;">Page 83</p> <p>1 Q Do you consider yourself an expert in</p> <p>2 XRD?</p> <p>3 A I would say that I used to be. I could</p> <p>4 just about make a diffractometer jump up and</p> <p>5 dance. Not -- not anymore. There's a whole new</p> <p>6 generation of machines out there that are -- that</p> <p>7 are -- can do things that I never thought would</p> <p>8 ever be done.</p> <p>9 Q And it's just not something -- you</p> <p>10 haven't kept up with the technology or the</p> <p>11 research?</p> <p>12 A No. Actually, they sold my -- I had</p> <p>13 a -- I had my own x-ray machine, and the</p> <p>14 university sold it when I retired because nobody</p> <p>15 knew how to run it. I'm serious. I -- they</p> <p>16 should have never done that.</p> <p>17 Q All right. Have you ever done -- have</p> <p>18 you ever published anything regarding asbestos?</p> <p>19 A Same -- same story. You know, in -- in</p> <p>20 the two state mineralogies, there's lots of</p> <p>21 information I published on asbestos. And I've --</p> <p>22 you know, I've testified relative to asbestos and</p> <p>23 for -- and I'm -- I'm sure that I can say this,</p> <p>24 but for Oldcastle, I did a complete asbestos</p>	<p style="text-align: right;">Page 85</p> <p>1 Q Okay.</p> <p>2 A -- that operate in the US under a lot</p> <p>3 of different names. But -- but the man I did</p> <p>4 this for was David Toolan, who's their general</p> <p>5 counsel in Atlanta. And so I used the word</p> <p>6 "Oldcastle" because he's the Oldcastle general</p> <p>7 counsel.</p> <p>8 Q What type of ores were you looking at</p> <p>9 when you were doing these reviews?</p> <p>10 A What was that?</p> <p>11 Q What type of ores were you looking at</p> <p>12 when you were doing these reviews?</p> <p>13 A Everything they had was being sold for</p> <p>14 aggregate for one use or another. You know,</p> <p>15 there are different uses for aggregate.</p> <p>16 Q Uh-huh.</p> <p>17 A And, so, each one of the quarries was a</p> <p>18 quarry that -- that was crushing and sizing stone</p> <p>19 for either a concrete market, a surface materials</p> <p>20 market.</p> <p>21 A lot of material gets -- gets sold to</p> <p>22 Florida because Florida doesn't have adequate</p> <p>23 rock to surface their own highways. So</p> <p>24 everything that is -- is a good surface material,</p>

22 (Pages 82 to 85)

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<p style="text-align: right;">Page 86</p> <p>1 if it's asphalt in Florida, it's coming out of 2 Georgia or Alabama. 3 Q Okay. So -- 4 A And that's -- that's the type of stuff. 5 Q All right. I apologize. I used the 6 word "gravel." I'm guessing gravel is probably 7 not -- 8 A No. 9 Q -- the right mining term. 10 A I'm very upset with that. 11 Q But I think we're talking about the 12 same thing. 13 A Yeah. 14 Q So aggregate seems to be the correct 15 term. 16 A Aggregate. 17 Q And I apologize. 18 And it seems like your job was to 19 determine -- locate asbestos within that ore, or 20 the absence of it? 21 A Well, it was -- it was a little bit 22 more than that. They had -- I had to go and 23 sample their stockpiles and select samples from 24 the stockpiles to --</p>	<p style="text-align: right;">Page 88</p> <p>1 Q And you've never published anything 2 regarding talcum powder specifically; correct? 3 A No. 4 Q And did you have any opinions 5 regarding, you know, talcum powder and the 6 potential of asbestos or heavy metals in talcum 7 powder prior to being engaged in this litigation? 8 MS. O'DELL: 9 Object to the form. 10 A No. 11 MR. FROST: 12 Q Okay. 13 All right. That's a good place to take 14 a break. 15 VIDEOGRAPHER: 16 Going off the record. The time is 17 10:06 a.m. 18 (OFF THE RECORD.) 19 VIDEOGRAPHER: 20 We're back on the record. The time is 21 10:25 a.m. 22 MR. FROST: 23 Q All right. Let's turn to page 2 of 24 your report. And under the section "Summary of</p>
<p style="text-align: right;">Page 87</p> <p>1 I use a lab in Salt Lake City or in 2 Lindon, Utah, which is south of Salt Lake, to 3 make my -- my -- my thin sections. And, so -- 4 and then I would do complete thin section 5 analysis for each sample. And I would count more 6 or less a thousand grains in each thin section 7 and -- and report on the mineral composition of 8 their rock. 9 Q Uh-huh. 10 A And if there was a -- 11 And some of them actually have 12 amphiboles. But, with one exception, I never saw 13 anything that I would have -- I would have, you 14 know, said this is a -- you know, you're looking 15 at some chrysotile or something like that. I did 16 see some once. 17 Q Okay. Have you ever done any testing 18 of finished talcum powder? 19 A No. 20 MS. O'DELL: 21 Jack, are you at a stopping point? 22 MR. FROST: 23 Yeah. I've got like one more question, 24 and then I'll be done with this topic.</p>	<p style="text-align: right;">Page 89</p> <p>1 Opinions," you've set forth seven opinions. Does 2 that sound right? 3 A Yes. 4 Q Will you agree with me that, you know, 5 these are the opinions -- these are the ultimate 6 conclusions and the opinions that are supported 7 by your report? 8 A Yes. 9 Q And I won't read them all, but I'll 10 start by going over a couple of them. The first 11 opinion states, "Talc deposits derived by the 12 alteration of serpentinites contain chrysotile 13 and amphibole species and fibrous asbestiform 14 habits, all of which are known carcinogens." 15 Did I read that correctly? 16 A I believe so. 17 Q And you'll agree with me that the 18 question here is whether or not -- it's not 19 necessarily what's in the deposit; correct? 20 We're concerned with what's in -- what ends up in 21 the ore. Would you agree with that? 22 MS. O'DELL: 23 Object to the form. 24 A I'm not sure you're not asking a -- a</p>

23 (Pages 86 to 89)

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<p style="text-align: right;">Page 90</p> <p>1 redundant question of some sort, because what is 2 in the ore is in the -- in the -- in the deposit 3 as a whole, unless you want to refine that a 4 little bit. 5 MR. FROST: 6 Q I was gonna say, are you looking at 7 deposit more -- are you looking at deposit as 8 only the ore, or are you looking at deposit as 9 the entirety of -- 10 I'll -- I'll strike that. 11 You agree with me what is the -- the 12 mineable deposit is different than the entirety 13 of the deposit when you're talking about talc; 14 correct? 15 A Yeah. Yes and no. Don't -- I -- I 16 object to the use of the word "deposit." 17 "Deposit," to an economic geologist, means the -- 18 the occurrence of the ore. 19 Q Okay. 20 A And so -- so you're -- what -- I think 21 what you're saying is that the serpentinite as a 22 whole may be mineralogically at variance with the 23 ore deposit itself. 24 Is that what you're asking?</p>	<p style="text-align: right;">Page 92</p> <p>1 MR. FROST: 2 Q Okay. 3 A In -- 4 Q And, so, what I want to get at -- 5 MS. O'DELL: 6 Let him finish. 7 Were you finished, Dr. Cook? 8 A Well, I was gonna -- gonna just finish 9 with one more sentence. 10 MR. FROST: 11 Q Sure. Go ahead. 12 A In -- in the ore deposit itself, the 13 talc ore, of course, is gonna be different from 14 the serpentinite from which it was derived. 15 I mean, serpentinite and talc are not 16 the same thing, so, of course they're different. 17 Q Would you agree with me that, within 18 the talc deposit, you can have areas of the talc 19 that are less pure than other areas of the 20 deposit, say closer to or further from the -- the 21 edges of the deposit? 22 A Sure. 23 Q And you'd agree with me that not the -- 24 not all of that talc will end up getting mined</p>
<p style="text-align: right;">Page 91</p> <p>1 Q That's correct. That's what I'm 2 talking to. 3 You can have -- when you look at a -- I 4 was talking about deposit in more of a global 5 term, that when you have an area of talc, I was 6 looking at that as the deposit and then -- which 7 is separate from the sort of smaller economic 8 deposit of ore that's mineable inside of it. 9 MS. O'DELL: 10 Object to the form. 11 MR. FROST: 12 Q So when you refer to "deposit," you're 13 just talking about the mined ore and not what 14 surrounds it? 15 MS. O'DELL: 16 Object to the form. 17 A It may not be mined. It would be part 18 of the talc deposit per se. These things are 19 part of a -- a larger occurrence of -- of a rock 20 that's silica-deficient, rich in magnesium. It's 21 altered by the influx of warm waters at some 22 point. And within or around or adjacent to maybe 23 in some cases a core of serpentinite, you will 24 have a talc deposit.</p>	<p style="text-align: right;">Page 93</p> <p>1 and used as the ultimate ore; correct? 2 MS. O'DELL: 3 Object to the form. 4 A That may or may not occur. There are 5 companies who will get every single scrap of -- 6 of ore they can, and that would -- that would 7 cause them in some cases to incorporate some of 8 the wall rock in with the last bit of ore that 9 they remove. And, so, that's -- that happens. 10 That's not really very uncommon. 11 MR. FROST: 12 Q Okay. Focusing, though, on cosmetic 13 talc, which, you know, is what we're concerned 14 with here -- 15 A Right. 16 Q -- you'd agree with me that if you have 17 an area of the deposit that is, you know, only 18 5 percent talc and an area of the deposit that is 19 60 percent talc, that the -- what becomes the ore 20 does not necessarily come from the -- they're not 21 gonna use the entire deposit to create cosmetic 22 ore; correct? 23 MS. O'DELL: 24 Object to the form.</p>

24 (Pages 90 to 93)

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<p style="text-align: right;">Page 94</p> <p>1 A I -- I think that that's -- that's a 2 fair statement. But you might also say you 3 wouldn't use the entire deposit to make -325 mesh 4 talc to put in paint. I mean, it -- you know, 5 you could say that with respect to a lot of the 6 products. 7 MR. FROST: 8 Q Sure. 9 So that's what I'm getting at is it's 10 not necessarily the entire deposit that is of 11 concern. It's really which part of that deposit 12 ends up becoming the talc ore. Correct? 13 A Correct. 14 MS. O'DELL: 15 Object to the form. 16 MR. FROST: 17 Q Okay. 18 MS. O'DELL: 19 Give me just a second. 20 THE WITNESS: 21 Yeah. Sorry about that. 22 MR. FROST: 23 Q And the first opinion relates to the 24 alteration of serpentinites. That, for purposes</p>	<p style="text-align: right;">Page 96</p> <p>1 know, that it's been determined to have similar 2 health effects as asbestos, and you quote two 3 IARC papers. 4 A Yes. 5 Q And I think we've -- we've already 6 determined you're not an expert. You know, 7 you're not a doctor. You're not a toxicologist. 8 A No. 9 Q And are you aware, sitting here today, 10 of any scientific studies that have determined 11 fibrous talc to be a human carcinogen? 12 A I'm aware that IARC says it is. 13 Q Okay. And, other than IARC, can you 14 cite to me any other studies that show that 15 fibrous talc is a human carcinogen? 16 A I cannot. But I'd like to say that 17 IARC wouldn't have considered it carcinogenic if 18 there weren't studies that supported that 19 conclusion. 20 Q And you're not here to, you know, opine 21 what may or may not cause human disease; right? 22 A No, absolutely not. 23 Q And do you consider yourself to be an 24 expert in reading, you know, IARC and</p>
<p style="text-align: right;">Page 95</p> <p>1 of this case, only relates to Vermont; right? 2 A Let me see the way I've worded that 3 again. 4 For purposes of this case, yeah. 5 Q Okay. You'll agree with me that in 6 China and Italy are derivations of carbonates? 7 A That's what I'd say, yes. 8 Q Looking at the second opinion, which is 9 B, the one that states -- talks about fibrous 10 talc -- 11 A Right. 12 Q -- at the very end of that you state 13 that, "Fibrous talc fulfills the requirements for 14 inclusion with asbestiform minerals which are 15 known to be human carcinogens." 16 A Correct. 17 Q Okay. And you repeat this on page 9 of 18 your report. 19 A Okay. 20 Q It appears to be -- it's the last 21 sentence. Is it the last sentence? Sorry. It's 22 the sentence before that. You talk -- generally, 23 it's that last paragraph. Again, we're talking 24 about, you know, fibrous talc, and then, you</p>	<p style="text-align: right;">Page 97</p> <p>1 interpreting IARC monographs? 2 A No. 3 Q Okay. And you agree with me that the 4 IARC monographs themselves aren't firsthand 5 research papers; correct? 6 MS. O'DELL: 7 Object to the form. 8 A I think that there are people that 9 would consider some of them research papers in 10 that it is they are drawing conclusions based on 11 research into the literature with a hypothesis 12 that fibrous talc does cause cancer or they might 13 use an alternate hypothesis, fibrous talc does 14 not cause cancer. And then to support either one 15 of those opinions, they're looking at the results 16 of research. 17 Q You -- 18 A And, so, from that standpoint, maybe 19 the IARC documents are in a way a research paper. 20 Q Well, you agree with me they're not 21 doing any independent lab work? 22 A I don't think they are. 23 Q And they're not doing any independent 24 epidemiology studies on their own?</p>

25 (Pages 94 to 97)

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<p style="text-align: right;">Page 98</p> <p>1 A I don't think so.</p> <p>2 Q Okay.</p> <p>3 A Let me back up. I don't know what</p> <p>4 their budgeting is. There are organizations like</p> <p>5 this that make grants for the study of things</p> <p>6 that they're interested in gathering data on.</p> <p>7 The World Health Organization as a whole I think</p> <p>8 does. National Institute of Health does here in</p> <p>9 the US. They're a very, very robust ranking</p> <p>10 agency.</p> <p>11 Q Okay. With respect to the IARC</p> <p>12 monographs, you'd agree with me that they're</p> <p>13 reviewing work done by other scientists and</p> <p>14 drawing conclusions based on them?</p> <p>15 A That's what I -- sure.</p> <p>16 Q And other than what the conclusions</p> <p>17 that IARC has drawn, you can't point me to any</p> <p>18 peer-reviewed studies that support their</p> <p>19 research?</p> <p>20 A No. I'm -- I'm sure they're listed in</p> <p>21 the monographs.</p> <p>22 Q And you'd also agree with me that IARC</p> <p>23 does not conclude that there's any link between</p> <p>24 fibrous talc and ovarian cancer; correct?</p>	<p style="text-align: right;">Page 100</p> <p>1 A No.</p> <p>2 Q Do you intend to publish your opinions</p> <p>3 in this case?</p> <p>4 A No.</p> <p>5 Q Is there a particular reason why you --</p> <p>6 you do or don't intend to publish them?</p> <p>7 A I don't think it's a -- I don't think</p> <p>8 it's a good practice to do this. I know people</p> <p>9 that do, and they're not looked upon well by</p> <p>10 their peers. I don't think it's good to publish</p> <p>11 data that's generated in litigation.</p> <p>12 Q And it's --</p> <p>13 A That's my personal opinion.</p> <p>14 Q No. That's a fair opinion.</p> <p>15 So you believe there's a difference</p> <p>16 between litigation-derived, you know, research</p> <p>17 and opinions versus academic-derived research --</p> <p>18 MS. O'DELL:</p> <p>19 Object to the form.</p> <p>20 MR. FROST:</p> <p>21 Q -- research and opinions?</p> <p>22 MS. O'DELL:</p> <p>23 I'm sorry.</p> <p>24 MR. FROST:</p>
<p style="text-align: right;">Page 99</p> <p>1 MS. O'DELL:</p> <p>2 Object to the form.</p> <p>3 A I don't know the answer to that.</p> <p>4 MR. FROST:</p> <p>5 Q That's fine. "I don't know" is a</p> <p>6 perfectly acceptable answer.</p> <p>7 A Yeah. I -- I think that they -- that</p> <p>8 ovarian cancer is mentioned. But in the actual</p> <p>9 statement that it's a group 1 member, they</p> <p>10 probably don't mention ovarian cancer per se.</p> <p>11 Q Okay. And --</p> <p>12 A But -- but they might. I don't know</p> <p>13 that.</p> <p>14 Q All right. And you're not an expert on</p> <p>15 the subject, so you can't sit here and tell me</p> <p>16 what types of cancer fibers talc may or may not</p> <p>17 be associated with?</p> <p>18 A No. No.</p> <p>19 Q Other than the seven opinions that we</p> <p>20 have put forth here on pages 2 and 3 of your</p> <p>21 report, do you have any other opinions that you</p> <p>22 plan to render --</p> <p>23 A No.</p> <p>24 Q -- in this case?</p>	<p style="text-align: right;">Page 101</p> <p>1 I didn't -- I didn't think you were</p> <p>2 being rude in talking over me.</p> <p>3 MS. O'DELL:</p> <p>4 Yes. Yeah. I was just trying to get</p> <p>5 my objection in.</p> <p>6 Objection.</p> <p>7 A I'm not saying that there's a</p> <p>8 difference. I think that it has to do with</p> <p>9 motivation behind research, has to do with who's</p> <p>10 paying for it. I think it's more of a</p> <p>11 philosophical issue with me than anything else.</p> <p>12 MR. FROST:</p> <p>13 Q Did you certainly --</p> <p>14 A I've been involved with litigation</p> <p>15 since probably the mid-1970s, and I've never</p> <p>16 thought about publishing the results that I</p> <p>17 obtained during a litigation research project,</p> <p>18 let's say.</p> <p>19 Q Okay. You'd agree with me that's</p> <p>20 because there are issues with potential bias</p> <p>21 issues --</p> <p>22 A Sure.</p> <p>23 Q -- with conflict of interest</p> <p>24 disclosures?</p>

26 (Pages 98 to 101)



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<p>1 MS. O'DELL: 2 Excuse me. Give me a chance. 3 A Sorry. 4 MS. O'DELL: 5 Object to the form. 6 I don't think there's a question 7 pending, Doctor. 8 MR. FROST: 9 Q Yeah. I was going to say, did you 10 answer? 11 The second part of the question, so 12 you -- the second part of the question is, you 13 know, one of the issues would be conflict of 14 interest disclosures, sources of funding, things 15 like that would all, you know, go into the 16 decision as to whether or not, you know, you 17 would decide to publish? 18 MS. O'DELL: 19 Object to the form. 20 A The conflict of interest is -- is a 21 really important topic. And -- and I agree that 22 would be one of the reasons not to. 23 MR. FROST: 24 Q Okay. Turn to page 4 of your report.</p>	<p>1 So what are the characteristics that 2 these minerals have to have to be called 3 asbestos? Well, fibrous. They've got to have an 4 aspect ratio of -- some people want to say as low 5 as 3-to-1. I don't agree with that. 5-to-1 is 6 what most people, I think, would use today. 7 They occur in groups of parallel 8 fibers. Can be -- you can call them bundles. 9 Bundles can show -- if you look at the end of a 10 bundle, you can see that they -- that there is -- 11 they are composed of more than one particle. You 12 can begin to see a spray at the end of a bundle. 13 These things are -- they're flexible. 14 In other words, you can bend them without 15 breaking, for the most part, although that's a 16 little bit questionable because the -- the 17 tendency to break perpendicular to the length in 18 amphiboles is different from -- in chrysotile. 19 So there can be a little bit of a difference 20 there. 21 The tensile strength is usually pretty 22 high. 23 Q Okay. 24 A Resistance to electricity, resistance</p>
Page 103	Page 105
<p>1 At the beginning of the second paragraph you note 2 that talc deposits can attain -- can contain 3 asbestos. 4 A Uh-huh. 5 Q How do you define asbestos? 6 A Well, fibrous mineral that is -- I'm 7 trying to decide how to describe mineralogically 8 what they are, because the original six 9 chrysotile and then the five amphiboles that are 10 mentioned, the five amphiboles, some of them are 11 not even minerals anymore. And, so, somebody 12 somewhere has got to go in and actually redefine 13 asbestos mineralogically. 14 For example, anthophyllite is actually 15 a solid solution series with anthophyllite at one 16 end and ferro-anthophyllite at the other. But 17 ferro-anthophyllite is a mineral that forms 18 asbestos, and yet it's not mentioned in the 19 original definition of asbestos. They just say 20 anthophyllite. 21 And, so, traditionally you've got -- 22 you've got chrysotile is your serpentine member 23 of the asbestos family, and then you've got the 24 five amphiboles. Well, okay. That's great.</p>	<p>1 to heat. I think that they need to be larger 2 than 5 microns in length to be of significance. 3 So what we're really talking about are 4 fibers, minerals that occur in fibers that have 5 to belong to generally that group of minerals 6 that were originally described. 7 Q And do you recall what the five 8 amphibole minerals were? 9 A Well, the problem with this is that 10 some of them are called minerals and they're 11 actually trade names. 12 Q Okay. 13 A Like amosite is not a mineral at all. 14 You know, that's gonna be grunerite, for the most 15 part. 16 Crocidolite is actually a sodium 17 amphibole called riebeckite. And so there's 18 actinolite, tremolite, then those two and 19 anthophyllite. 20 Q Okay. And are you familiar with the 21 term "asbestiform"? 22 A Yes. 23 Q And the asbestiform habit? 24 A (Nods affirmatively.)</p>

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<p style="text-align: right;">Page 106</p> <p>1 Q Could you describe for me or can you 2 define for me what asbestiform means? 3 A We sort of talked about it in the 4 definition of asbestos. But asbestiform, again, 5 is related to a fibrous nature. And, from my 6 perspective, I've looked at a lot of asbestos in 7 rock samples. 8 Now, granted, the -- what you see in a 9 rock sample is gonna be coarse-grained asbestos. 10 And, so, if you see a little band of asbestos, 11 generally the fibers will be perpendicular to the 12 edges of that band, and if it -- if it's 13 asbestos, the chances are you can rub your 14 fingernail across it and actually dislodge -- 15 dislodge fibers. There are minerals that form 16 the same type of a band that you can't. 17 Q Uh-huh. 18 A And they will not dislodge. And 19 usually that won't be -- that won't be asbestos. 20 But the two may look asbestiform. So the real 21 question is can you have an asbestiform mineral 22 that is not asbestos? And the answer is yes. 23 Q Okay. 24 VIDEOGRAPHER:</p>	<p style="text-align: right;">Page 108</p> <p>1 Doctor? 2 THE WITNESS: 3 Yeah, I think so. 4 MR. FROST: 5 Q And with respect to the five 6 amphiboles, you'd agree with me it's the 7 asbestiform or the fibrous variant that's defined 8 as, quote, asbestos, closed quote; correct? 9 MS. O'DELL: 10 Object to the form. 11 A I'm sorry, Jack. Can you ask that -- 12 MR. FROST: 13 Sure. 14 Q And you'd agree with me, with respect 15 to the five amphiboles, it's the fibrous or 16 asbestiform version of those amphiboles that is 17 defined as, quote, asbestos, closed quote? 18 MS. O'DELL: 19 Object to the form. 20 A That is correct. But there is some -- 21 the literature is inconsistent in that regard. 22 There should -- if you've got -- if you've got 23 actinolite asbestos, it should always say 24 actinolite asbestos --</p>
<p style="text-align: right;">Page 107</p> <p>1 Can I go off the record really quickly? 2 MR. FROST: 3 Sure. 4 VIDEOGRAPHER: 5 The time is 10:42 a.m. 6 (OFF THE RECORD.) 7 VIDEOGRAPHER: 8 We're back on the record. The time is 9 10:42 a.m. 10 MR. FROST: 11 Q And, so, we're talking about the 12 definition of asbestos. Chrysotile, I believe, 13 is always asbestiform. That's the asbestiform 14 serpentine? 15 A If you -- if you actually apply a 16 minimum length to the fiber to chrysotile, then 17 it isn't always asbestiform. 18 Q Oh, okay. 19 A I mean, it can be below that 5 micron 20 and then, you know, it's out the door as 21 asbestos. 22 Q And, then, with respect -- 23 MS. O'DELL: 24 Are you finished -- were you finished,</p>	<p style="text-align: right;">Page 109</p> <p>1 MR. FROST: 2 Q Okay. 3 A -- or fibrous actinolite. There 4 should -- there should be a modifier if you're 5 going to -- to go from the mineral species by 6 itself into the realm of asbestos. 7 Q And that's sort of the question I was 8 getting to. There's a difference between -- 9 And we'll use actinolite, which you 10 just used. 11 There's actinolite, which isn't 12 necessarily asbestos, and then there's 13 asbestiform or fibrous actinolite, which is. 14 Correct? 15 A Correct. 16 Q And you can have one without the other; 17 right? 18 A Correct. 19 MS. O'DELL: 20 Object to the form. 21 MR. FROST: 22 Q And do you know what a cleavage 23 fragment is? Is that a term you're familiar 24 with?</p>

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<p style="text-align: right;">Page 110</p> <p>1 A Correct. It is.</p> <p>2 Q Okay. Can you please explain to me</p> <p>3 what a cleavage fragment is?</p> <p>4 A A cleavage fragment, according to the</p> <p>5 American Geological Institute, their definition</p> <p>6 is wrong, and I can tell you why. But their</p> <p>7 definition is that it's a crystal particle that</p> <p>8 is bounded by cleavage surfaces. And since not</p> <p>9 all crystals have three directions of cleavage</p> <p>10 that would give you cleavage on every side, that</p> <p>11 can't be right.</p> <p>12 But, in essence, it's a -- a broken</p> <p>13 crystal fragment that is bounded at least</p> <p>14 partially by planes of breakage rather than</p> <p>15 crystallization.</p> <p>16 Q Would you agree with me that the</p> <p>17 difference between a cleavage fragment and an</p> <p>18 asbestiform fiber is the habit in which it grew,</p> <p>19 the way in which it developed?</p> <p>20 MS. O'DELL:</p> <p>21 Object to the form.</p> <p>22 A Let me answer that this way. The</p> <p>23 answer is yes and no. It's possible to have an</p> <p>24 amphibole that is truly an asbestos fiber. And</p>	<p style="text-align: right;">Page 112</p> <p>1 Well...</p> <p>2 Q So how would you go about determining</p> <p>3 whether a population of particles are cleavage</p> <p>4 fragments versus asbestiform fibers?</p> <p>5 MS. O'DELL:</p> <p>6 Object to the form.</p> <p>7 A I -- I would hit it with the polarizing</p> <p>8 microscope first so -- because that allows you to</p> <p>9 look at a lot of -- a lot of grains.</p> <p>10 You know, one of the problems with this</p> <p>11 is that as you -- as you look at finer and finer</p> <p>12 grain material, your ability to look at large</p> <p>13 numbers of grains diminishes. I like to pop a</p> <p>14 sample, ground it up not too fine but grind it</p> <p>15 up, put it in an immersion oil and put it under a</p> <p>16 petrographic microscope and see what I see.</p> <p>17 I would also like to have a thin</p> <p>18 section of that same sample, because sometimes in</p> <p>19 a thin section you can see that there is no</p> <p>20 asbestiform thing there at all, and yet you may</p> <p>21 end up with a suspect sample. On the other hand,</p> <p>22 just the opposite can happen.</p> <p>23 So I think that the idea is that you've</p> <p>24 got to start large and -- and work down if</p>
<p style="text-align: right;">Page 111</p> <p>1 because of the cleavage in amphiboles, you can</p> <p>2 take that original asbestos fiber and break it up</p> <p>3 into a cleavage fragment. And, so, therein is</p> <p>4 the problem.</p> <p>5 You can certainly have cleavage</p> <p>6 fragments that were derived from a large single</p> <p>7 crystal that are prismatic, they look like</p> <p>8 needles, and they're not related to an asbestos</p> <p>9 particle. But you can have something that looks</p> <p>10 exactly the same that is. And, so, that's a --</p> <p>11 it's a very tough call.</p> <p>12 MR. FROST:</p> <p>13 Q Are there any properties that you would</p> <p>14 use to identify the difference between a cleavage</p> <p>15 fragment and an asbestiform fiber?</p> <p>16 A With respect to chrysotile, yes, of</p> <p>17 course. With respect to amphiboles, your value</p> <p>18 there is to look at lots and lots of material.</p> <p>19 And if -- if the material is -- is asbestiform,</p> <p>20 you're ultimately gonna see the pieces that are,</p> <p>21 and then you begin to get the -- the concept that</p> <p>22 these cleavage fragments, which are always gonna</p> <p>23 be smaller, are derived from a fiber. I mean, I</p> <p>24 think that you really are --</p>	<p style="text-align: right;">Page 113</p> <p>1 it's -- if it's required.</p> <p>2 MR. FROST:</p> <p>3 Q Okay. Is a good way to summarize that</p> <p>4 that you have to look at the population of</p> <p>5 particles as a whole? You can't just necessarily</p> <p>6 focus in on one or two individual particles to</p> <p>7 make a call?</p> <p>8 MS. O'DELL:</p> <p>9 Objection, to the degree "particles" is</p> <p>10 vague.</p> <p>11 A Yeah. I -- I'm not saying that. I'm</p> <p>12 not saying that if you -- if you look at a small</p> <p>13 population, see a chrysotile particle, that you</p> <p>14 need to then go back and look at a 5-ton rock</p> <p>15 sample just to make sure it was chrysotile. You</p> <p>16 don't have to do that. But if you're worried</p> <p>17 about the presence or absence, period, then you</p> <p>18 need to look at a lot of samples.</p> <p>19 MR. FROST:</p> <p>20 Q Okay. You can't just look at one, you</p> <p>21 know --</p> <p>22 Are you familiar with the term</p> <p>23 "elongated mineral particle"?</p> <p>24 A Sure.</p>

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<p style="text-align: right;">Page 114</p> <p>1 Q So you can't just look at one EMP and 2 make a determination as to whether or not that's 3 asbestos? 4 MS. O'DELL: 5 Object to the form. 6 A One particle? You might be able to. 7 Depends on the particle. 8 MR. FROST: 9 Q And what types of things would you have 10 to look for in that particular particle? 11 A Well, are we talking about amphibole or 12 chrysotile? 13 Q I was going to say, I understand 14 amphibole is different because amphibole has a 15 lot of its own characteristics. 16 A All right. 17 Q Let me rephrase my question. We'll -- 18 let's focus on the amphiboles, because I think 19 that's a little more difficult. 20 A Yeah. It is. Yeah, the amphiboles are 21 tough. 22 And your question had to do with an 23 elongated particle, is it asbestiform or not? 24 Q That's correct.</p>	<p style="text-align: right;">Page 116</p> <p>1 it would have a tendency to break. But, still, 2 it's not hard to find amphibole grains that are 3 bent. And when they are, then, you know, then 4 you're beginning to satisfy the definition. 5 Q If I were to show you pictures of, you 6 know, sort of isolated particles under TEM, is 7 that the kind of thing that you could look at and 8 go, yeah, that's cleavage fragment; yeah, that's 9 asbestos? 10 A Sometimes. 11 Q Sometimes? 12 A Sure. Sometimes, yes; sometimes, no. 13 Q Is that something that you routinely do 14 in your job? 15 A No. 16 Q No. 17 Okay. Is it something that you have 18 any experience with doing? 19 MS. O'DELL: 20 Are you talking about TEM? 21 MR. FROST: 22 Q TEM or SEM images. 23 A I mean, I've looked at some. But 24 that's not -- that's not part and parcel of what</p>
<p style="text-align: right;">Page 115</p> <p>1 A The -- I'm not sure that without seeing 2 the sample from which the particle came that you 3 can make a real good call there unless you -- you 4 have an entire particle. Now, some of these 5 particles will not be broken at the ends and you 6 can actually see the termination of the grain. 7 If it is non-asbestiform, the 8 termination will normally be a single oblique 9 plane to the direction of elongation. 10 If it's -- if it's an asbestiform 11 fragment, sometimes these fragments taper to a 12 point. And that's pretty much of a giveaway that 13 you're looking at a single crystallized fiber. 14 Another thing you might do is see 15 whether your population has bent fibers in it. 16 Okay? Many times that's a dead giveaway. 17 Q That has to go with -- I think you -- 18 flexibility or tensile strength are some of the 19 aspects you had listed earlier? 20 A Right. 21 And with amphiboles, you have to be 22 careful because there is a cleavage plane 23 direction that is perpendicular to the 24 elongation. So if you try to bend an amphibole,</p>	<p style="text-align: right;">Page 117</p> <p>1 I normally do. 2 Q Okay. You're not an expert in 3 reviewing TEM or SEM images? 4 A I wouldn't think I was. 5 Q Do you have any opinion as to whether 6 or not surface chemistries of asbestiform or 7 non- -- and non-asbestiform particles are 8 different? 9 A Surface chemistry? 10 Q Yes. 11 A I'm not sure I understand how the 12 surface chemistry's gonna be greatly different 13 from the chemistry through the grain. 14 Q Okay. So that's -- that's not 15 something you have an opinion about, about 16 surface chemistry? 17 A I think that -- I'm not sure -- I'm not 18 sure what you're really asking. 19 The -- if you're gonna do, like, EDAX, 20 how far into the grain do you think you're really 21 analyzing? Is that what you're talking about 22 when you say "surface"? Because you may not be 23 getting an analysis that's gonna be 24 representative of the grain as a whole on --</p>

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<p style="text-align: right;">Page 118</p> <p>1 on -- on a lot of these techniques. You're --</p> <p>2 you're -- the penetrating power may not be that</p> <p>3 great.</p> <p>4 But I don't think that -- I don't think</p> <p>5 that I would be greatly concerned about surface</p> <p>6 chemistry versus chemistry five -- five or six</p> <p>7 microns into a grain. I'm not sure there should</p> <p>8 be any big difference unless you're -- there's a</p> <p>9 coating of some sort that -- that maybe is,</p> <p>10 you know, has been applied.</p> <p>11 You know, you have to -- to coat some</p> <p>12 of these samples, anyway, if you're -- if you're</p> <p>13 doing SEM work.</p> <p>14 So, I mean, you know, you get carbon.</p> <p>15 In fact, I'm sure that you've looked at a lot of</p> <p>16 these analyses. And if you look at the analyses,</p> <p>17 you'll see that they'll have silica. They'll</p> <p>18 mark it, and they'll mark it SI. And they'll</p> <p>19 have magnesium, and they'll mark it MG. And then</p> <p>20 about here, there'll be iron. And then just</p> <p>21 beyond iron, there'll be a strong peak. And they</p> <p>22 never identify it, and yet it's there. It's part</p> <p>23 of their analysis. You know what it is? Copper.</p> <p>24 That's the copper peak from the sample. So they</p>	<p style="text-align: right;">Page 120</p> <p>1 MR. FROST:</p> <p>2 Q So you'd agree with me that if you're</p> <p>3 looking at a small population of fibers or you're</p> <p>4 looking at -- well, not fibers, but if you're</p> <p>5 looking at a small population of particles or</p> <p>6 looking at a single particle, a lot of times the</p> <p>7 call as to whether or not it's cleavage or,</p> <p>8 you know, prismatic versus asbestiform fiber</p> <p>9 is -- is subjective unless you have a larger</p> <p>10 population to review?</p> <p>11 MS. O'DELL:</p> <p>12 Excuse me. Object to the form.</p> <p>13 A It can be. I think that -- that it's</p> <p>14 necessary to begin to go back and look at the</p> <p>15 original definitions and begin to try to apply</p> <p>16 them to that particular grain.</p> <p>17 MR. FROST:</p> <p>18 Q Uh-huh.</p> <p>19 A And -- and sometimes it's possible.</p> <p>20 Sometimes it may not be. And that's why it's</p> <p>21 important to look at many, many, many, many, many</p> <p>22 samples, many grains.</p> <p>23 Q Okay. And I take it you have no</p> <p>24 opinion regarding the potential health risks</p>
<p style="text-align: right;">Page 119</p> <p>1 just ignore that.</p> <p>2 And, so -- so you have to -- you have</p> <p>3 to really take a look at the technique that's</p> <p>4 being used if you want to talk about surface</p> <p>5 chemistry versus total chemistry.</p> <p>6 Q And do you have an opinion as to</p> <p>7 whether or not -- I'll call it the cleavage</p> <p>8 fragments versus asbestiform fibers have</p> <p>9 different surface features and different surface</p> <p>10 identifiable markers?</p> <p>11 MS. O'DELL:</p> <p>12 Object to form.</p> <p>13 A I think that -- that it's possible to</p> <p>14 identify cleavage surfaces under some situations,</p> <p>15 because they don't have to be perfectly planar.</p> <p>16 You can have steps where -- where the cleavage</p> <p>17 fragment is actually peeling away from the</p> <p>18 adjacent fragment that results when the two</p> <p>19 separate.</p> <p>20 The problem with this is that that can</p> <p>21 happen in a fiber. I mean, an amphibole fiber,</p> <p>22 if you can come up with a hammer small enough and</p> <p>23 hit it, it's gonna break into cleavage fragments.</p> <p>24 So...</p>	<p style="text-align: right;">Page 121</p> <p>1 associated with a cleavage fragment versus an</p> <p>2 asbestiform --</p> <p>3 A No.</p> <p>4 Q -- mineral?</p> <p>5 A No.</p> <p>6 Q Turn to page -- still on 4 of your</p> <p>7 report. It's the -- the remainder of that</p> <p>8 sentence, "Talc deposits can contain asbestos,</p> <p>9 asbestiform minerals, or minerals containing</p> <p>10 elevated levels of heavy metals and arsenic,</p> <p>11 making their ores potentially unsafe. The</p> <p>12 distribution of asbestos and/or these undesirable</p> <p>13 elements can be quite irregular within individual</p> <p>14 talc deposits themselves or in the immediately</p> <p>15 adjacent host rocks."</p> <p>16 Did I read that right?</p> <p>17 A Sure.</p> <p>18 Q So you -- you'll agree with me that --</p> <p>19 Should I -- is it right to call the ore</p> <p>20 the economic mineral, you know, in a talc</p> <p>21 deposit?</p> <p>22 MS. O'DELL:</p> <p>23 Object to the form.</p> <p>24 A Let -- let's call it the material that</p>

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<p style="text-align: right;">Page 122</p> <p>1 you intend to extract and mill.  2 MR. FROST:  3 Q Okay. You'd agree with me that the  4 shape, size, and distribution of that, you know,  5 area of mineral you intend to extract as ore can  6 be different and irregular?  7 A Very.  8 Q And they're different for every  9 deposit; right?  10 A Very. Yes, sure.  11 Q It's not always gonna be the same  12 shape. It's not always gonna be the same size.  13 A That's why they have mining engineers.  14 Q And you'd agree with me that each  15 mineral deposit is usually complex?  16 A Yes.  17 MS. O'DELL:  18 Object to the form.  19 MR. FROST:  20 Q You know, and they have complex and  21 different geological histories?  22 MS. O'DELL:  23 Do you mean that specific mineral  24 deposits?</p>	<p style="text-align: right;">Page 124</p> <p>1 Object to the form.  2 A I mean, you could have things that you  3 mentioned that don't even exist in some areas.  4 MR. FROST:  5 Q Exactly.  6 A So, of course.  7 Q Okay. And would you also generally  8 agree with me that the -- the areas of talc that  9 are mined for use in cosmetic talcum powder,  10 you know, are much purer than, you know, sort of  11 the average deposit of talc you might find  12 somewhere in the world?  13 A Are you --  14 MS. O'DELL:  15 Object to the form.  16 A Are you restricting this to the -- to  17 the US?  18 MR. FROST:  19 Q I don't have to. I can ask it --  20 Is -- is your answer different if it's  21 US versus --  22 A It is.  23 Q -- somewhere else?  24 A Yes.</p>
<p style="text-align: right;">Page 123</p> <p>1 MR. FROST:  2 Q Just in -- just in general. Well,  3 we'll narrow it down to talc deposits.  4 MS. O'DELL:  5 With the world of talc or world of  6 minerals.  7 MR. FROST:  8 No. I was going to say...  9 Q We'll narrow it down to the world of  10 talc deposits.  11 You'd agree with me that, you know,  12 talc deposits can have complex and different  13 geological history?  14 MS. O'DELL:  15 Object to the form.  16 A Sure. If you're looking at talc on a  17 worldwide basis, of course.  18 MR. FROST:  19 Q Yeah. And, you know, you'll have  20 folding and faulting and you'll have different  21 geological circumstances that, you know, may  22 affect a localized area that wouldn't affect  23 somewhere else?  24 MS. O'DELL:</p>	<p style="text-align: right;">Page 125</p> <p>1 Q Okay. So restricted it to the US. So  2 what's your opinion there?  3 A Then with -- with respect to the US,  4 yeah, it's a higher quality talc.  5 Q Okay. And why is that different when  6 you then add in worldwide talc deposits?  7 A I think that there are examples of  8 impure talcs being used in -- in powders that  9 have originated from deposits in other countries  10 that, you know, that never make it to the US.  11 But you see the product analyzed and, you know,  12 my -- oh, my God, it's 99 percent asbestos, and  13 it's on, you know, every newspaper in the world,  14 but it isn't talc that was mined here and it  15 isn't talc that was sold in the US.  16 Q Okay. I see. And, then, actually,  17 now, I really appreciate the difference.  18 So with respect to the deposits that  19 were used by Johnson &amp; Johnson, you know, say, to  20 source the talc for its talcum powder products,  21 you know, you'd agree those come from deposits  22 that tend to be higher in purity and, you know,  23 more monomineralic than, say, other deposits that  24 exist?</p>

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<p style="text-align: right;">Page 126</p> <p>1 MS. O'DELL: 2 Object to the form. 3 A Yeah. You can't -- you can't say that, 4 simply because the Vermont talc deposits are not 5 monomineralic. They actually mine ore that's 6 talc plus carbonate. 7 MR. FROST: 8 Q Okay. 9 A They do it on purpose. 10 So that's not monomineralic. 11 Q I see. 12 So I guess a better way to ask it, 13 you know, the -- the talcum powder -- the 14 deposits that were used to source the talcum 15 powder for Johnson &amp; Johnson, they tended to be 16 higher percentages of talc and sort of more pure 17 talc deposits than other talc deposits that exist 18 throughout the United States, for example? 19 MS. O'DELL: 20 Object to the form. 21 A No, that's not right. 22 MR. FROST: 23 Q Okay. So you don't believe that, 24 you know, companies try to find talc deposits</p>	<p style="text-align: right;">Page 128</p> <p>1 accessory minerals in every deposit. Is that a 2 fair statement? 3 MS. O'DELL: 4 Are you talking about the same 5 geographic area or different geographic area for 6 the deposit? 7 MR. FROST: 8 Q Just in -- in general, you know, for 9 talc deposits. You know, we can limit it, let's 10 say, for example, in the United States, along the 11 ultramafic belt. 12 MS. O'DELL: 13 Object to the form. 14 A In the ultramafic belt, you can expect 15 to find certain minerals just by virtue of -- of 16 how the ultramafic bodies themselves got to where 17 they are, how they were altered, what -- what 18 metamorphic grade they occur at. 19 And, interestingly enough, the 20 chemistry of the rocks that surround them 21 apparently have a little bit to do with what -- 22 what you're gonna see. 23 MR. FROST: 24 Q Okay. You'd agree with me, just</p>
<p style="text-align: right;">Page 127</p> <p>1 with a higher concentration of talc to use for 2 cosmetic talcum powder? 3 MS. O'DELL: 4 Object to the form. 5 A Not necessarily. I think that -- that 6 with respect to the Vermont talc deposits, 7 probably the best talc in them is the talc that 8 is associated with magnesite. And, so -- 9 And, in fact, that's why the West 10 Windsor mill was so important. It -- that mill 11 was built to handle talc magnesite ore. Because 12 once you get the magnesite out, then you have a 13 relatively nice talc product. But it doesn't 14 start out being pure talc. 15 MR. FROST: 16 Q Okay. Would you also agree with me 17 that when you're looking at sort of talc deposits 18 in general, just because you find some -- 19 Are you familiar with the term 20 "accessory minerals"? 21 A Sure. 22 Q Okay. Just because you find some 23 accessory minerals in one deposit doesn't mean 24 you're gonna find the same compilation of</p>	<p style="text-align: right;">Page 129</p> <p>1 because you find actinolite in one deposit 2 doesn't mean actinolite is gonna be in every 3 single talc deposit along the belt; correct? 4 A My guess is that, if you want to use 5 actinolite as an example, you can pick a talc 6 deposit at random, we can go and spend enough 7 time to find an actinolite grain. 8 Q Okay. 9 A I mean, actinolite is so common. I 10 mean, it's -- it's everywhere. 11 Q All right. How about tremolite or 12 anthophyllite? 13 A Well, tremolite -- here's -- here's the 14 thing with tremolite. Tremolite has calcium in 15 it, and talc doesn't. And, so, if -- if there's 16 calcium in the -- the original rock that's being 17 altered, the calcium has got to have somewhere to 18 go. And tremolite is a very easy place to -- to 19 store calcium. And, so, it's not -- it's not 20 unexpected to see tremolite. 21 You certainly see tremolite in the talc 22 deposits that are formed from carbonate rocks 23 because a lot of those carbonates are dolomites 24 plus calcium carbonate-rich limestone. So</p>



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<p>1 they're -- they're interbedded.  2 And, so, you -- you do tend to see  3 tremolite in those. But you've got to  4 accommodate calcium somehow, and that's -- that's  5 a common way.  6 Q Okay. But, so you'd agree with me,  7 then, that not every deposit of talc is gonna  8 have tremolite in it, because they're not all  9 gonna be comprised of the same underlying  10 original materials before metamorphosis; right?  11 MS. O'DELL:  12 Object to the form.  13 A I'm -- I'm not gonna say that they all  14 don't --  15 Talc deposits can be -- you know,  16 they're pretty large. And if you found a  17 little -- you know, these are little, rootless  18 ultramafic bodies. Some of them are no bigger  19 than this (indicating). And you might find a  20 little teeny one like that, and there won't be a  21 tremolite grain within 50 feet of it.  22 But in terms of an economic talc  23 deposit, I would be shocked if you couldn't go  24 and station somebody at the mine the day it</p>	<p>1 instance, I think the Johnson mine has had  2 cobaltite reported from it, and -- and we don't  3 see any evidence of cobaltite at any of the other  4 talc deposits.  5 And, so, from that standpoint, sure,  6 there -- there can be a difference in the suite  7 of accessory minerals.  8 But if you're gonna talk about the  9 common rock-forming minerals, geez, you know,  10 those things show up all over the place.  11 I mean, if you look at the black wall,  12 you know, most of these deposits have got a -- a  13 rind around them; and the black wall, by  14 definition, has amphiboles in it. And based on  15 the chemistry of these things, they're bound to  16 be actinolite.  17 MR. FROST:  18 Q Okay. You'd agree with me that,  19 depending at the pressures, temperature, and the  20 time in which they form, what you're gonna find  21 associated with each, you know, mineable talc  22 deposit's gonna be different?  23 MS. O'DELL:  24 Object to the form. Asked and</p>
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<p>1 opened and -- and have them do nothing but search  2 for tremolite every day, and sometime during the  3 operation of that mine they're gonna come in with  4 a piece of tremolite. I'd be surprised if  5 that -- if that wouldn't happen.  6 MR. FROST:  7 Q So it's your position, sitting here as  8 a scientist, that every single talc deposit in,  9 say, the ultramafic belt will have the exact same  10 compilation of accessory minerals associated --  11 A No.  12 Q -- with it?  13 A No. I'm not saying that.  14 MS. O'DELL:  15 Excuse me. Object to the form.  16 Misstates his testimony.  17 MR. FROST:  18 Q Okay. So you agree with me that each  19 particular deposit will have its own particular  20 set of potential accessory minerals; right?  21 MS. O'DELL:  22 Object to the form.  23 A If we're gonna be very broad in our  24 definition of "accessory minerals." For</p>	<p>1 answered.  2 A Yeah. I -- I -- the way -- the way  3 that you stated that, I -- I don't think I would  4 exactly agree with you on that.  5 MR. FROST:  6 Q You wouldn't agree with me that you  7 have to look at the individual formation of each  8 deposit to determine, you know, what is or is not  9 going to be in it?  10 A When you say "the formation," you're  11 talking about the -- the genesis, not the rock  12 formation?  13 Q Yes. I'm talking about the genesis,  14 the actual, you know --  15 A Yeah.  16 Q -- time, heat, pressure of  17 metamorphism.  18 A The conditions of formation certainly  19 control the mineralogy of any rock.  20 Q Okay. And the conditions of formation,  21 you know, can be extremely localized, correct,  22 depending on what the -- what the original rock  23 was?  24 MS. O'DELL:</p>

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<p style="text-align: right;">Page 134</p> <p>1 Object to the form.</p> <p>2 A It certainly can. There seem to be</p> <p>3 some -- some consistent threads that run through</p> <p>4 these. But if you've looked at any of the mine</p> <p>5 maps, you've seen that some of these deposits are</p> <p>6 certainly cut by faults, and -- and some of these</p> <p>7 faults actually control the disposition of some</p> <p>8 of these accessory minerals.</p> <p>9 MR. FROST:</p> <p>10 Q Uh-huh.</p> <p>11 A So if it's not like faulting, then,</p> <p>12 you know, then you might not see a certain</p> <p>13 mineral.</p> <p>14 Some of these also had lamprophyre</p> <p>15 dikes in them. And those dikes, they have their</p> <p>16 own mineral assemblage. But -- but since it's</p> <p>17 almost impossible to mine some of the talc</p> <p>18 without incorporating some of the lamprophyre,</p> <p>19 then -- then you've got to look at the</p> <p>20 lamprophyre.</p> <p>21 Q Okay. You'd agree with me, you know,</p> <p>22 depending on what the surrounding rock was of the</p> <p>23 serpentinite, when it was formed, the temperature</p> <p>24 and pressure at which it was formed, you know,</p>	<p style="text-align: right;">Page 136</p> <p>1 unit. The -- the most recent publications spell</p> <p>2 it out pretty clearly that -- that that is a -- a</p> <p>3 sequence of rocks that contain carbonates, and</p> <p>4 those carbonates are deformed and they're -- they</p> <p>5 have been originally metamorphosed at apparently</p> <p>6 high grade, because they're garnets in the -- in</p> <p>7 the adjacent schists. And garnets are a mineral</p> <p>8 that -- that actually signals the beginning of a</p> <p>9 certain level of regional metamorphism.</p> <p>10 When you hit garnet grade metamorphism,</p> <p>11 you open up -- it's not really a Pandora's box,</p> <p>12 but you have the opportunity for a lot of -- a</p> <p>13 lot of more complicated mineralogy.</p> <p>14 And -- and that was what I meant in</p> <p>15 that statement. If you -- if you go to the</p> <p>16 literature and read about the accessory minerals</p> <p>17 there in the Italian talc deposits, you'll see</p> <p>18 some minerals mentioned that -- that you don't</p> <p>19 see attributed to some of the stuff in Vermont,</p> <p>20 for instance.</p> <p>21 Q Okay. So that's what you're talking --</p> <p>22 that's what you're talking about is because it's</p> <p>23 hosted from a different type of -- of rock?</p> <p>24 A It's a different type -- it's a --</p>
<p style="text-align: right;">Page 135</p> <p>1 whether or not it went through multiple stages of</p> <p>2 metamorphosis, all of this would, you know,</p> <p>3 change what might be in that particular localized</p> <p>4 deposit?</p> <p>5 MS. O'DELL:</p> <p>6 Object to the form.</p> <p>7 A In terms of accessory minerals, it</p> <p>8 might.</p> <p>9 MR. FROST:</p> <p>10 Q Okay. Okay. Page 4, go to section 1,</p> <p>11 "Chronology of Talc Sources." In that first</p> <p>12 paragraph, we're talking about the Italian mine</p> <p>13 in -- in this; correct? The Fontane mine?</p> <p>14 A Sure.</p> <p>15 Q Okay. And down towards the bottom of</p> <p>16 that paragraph you state, "Deposits from this</p> <p>17 region are known to be mineralogically complex,</p> <p>18 particularly with respect to their host</p> <p>19 metamorphics"?</p> <p>20 A Right.</p> <p>21 Q Can you explain to me how the</p> <p>22 particular deposit at the Fontane mine was</p> <p>23 formed?</p> <p>24 A Yeah. That -- that is a carbonate</p>	<p style="text-align: right;">Page 137</p> <p>1 those are different type deposits.</p> <p>2 Q Okay. And you'd agree with me that,</p> <p>3 you know, the literature basically says that the</p> <p>4 mineralogical composition was effectively stable</p> <p>5 through its formation in the Fontane area or the</p> <p>6 Val Chisone area?</p> <p>7 MS. O'DELL:</p> <p>8 Object to the form.</p> <p>9 MR. FROST:</p> <p>10 Q And remained stable throughout</p> <p>11 subsequent metamorphism?</p> <p>12 MS. O'DELL:</p> <p>13 Object to the form.</p> <p>14 A I think I know what you're asking.</p> <p>15 Are you asking about the talc remaining</p> <p>16 stable?</p> <p>17 MR. FROST:</p> <p>18 Q That's correct.</p> <p>19 A That's probably right.</p> <p>20 Q Okay. And, at the end of that</p> <p>21 paragraph, you note, "The deposits were often</p> <p>22 small and mined by underground methods."</p> <p>23 A Yes.</p> <p>24 Q What do you mean by "small"?</p>

35 (Pages 134 to 137)



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<p style="text-align: right;">Page 138</p> <p>1 A The -- the -- some of the earlier 2 descriptions of the -- the Val Chisone district's 3 deposits show them to be lens-like within the 4 host carbonate-bearing strata. And, so, if 5 you've -- if you've ever seen a -- a 6 cross-section of the Germanasca Valley, you've 7 got a valley, and there are mines on both sides 8 of it. 9 Q Uh-huh. 10 A And at the Fontane mine, you've got -- 11 you've got openings on one side and the other, 12 and they are all accumulated into material that's 13 called Fontane mine. And, yet, they're not 14 really a mine that's connected, and yet they're 15 all in the same stratigraphic horizon. 16 If you were to go up or down the 17 valley -- let's say up the valley -- you're 18 following the stratigraphy. Okay? The valley 19 has actually cut through the band of rocks that 20 contain the talc. And Fontane is in -- is, 21 you know, in the sides of the valley. 22 If you go up the valley, you're still 23 following that same bed of rock, and there are 24 lens-like occurrences of talc that have been</p>	<p style="text-align: right;">Page 140</p> <p>1 Valley. 2 A Yes. 3 Q Not necessarily the Fontane deposit. 4 A Right. Right. 5 Q And have you ever read the work by 6 Sandrone and Zuchetti? 7 A I don't recognize the names. It 8 doesn't mean I haven't read it. 9 Q Okay. And -- 10 A Can I -- can I continue with my answer 11 to that last question? 12 Q Sure. 13 A The reason I mentioned the small mines, 14 there -- there is an issue with -- with -- with 15 talc mining as well as gold mining. If you have 16 a mineral deposit that -- that has value on 17 paper, you have got to convert that mineral 18 deposit into somebody giving you a check for the 19 ore or the finished product. 20 And, so, what happens if you're in the 21 Germanasca Valley and you've got a very small, 22 very nice grade, very nice talc deposit? You've 23 got to have some way to mill that. 24 Well, suppose there's only one mill in</p>
<p style="text-align: right;">Page 139</p> <p>1 mined. And, so, those would be much smaller 2 mines than the Fontane. The Fontane's a big 3 mine. 4 Q Okay. That's what I was gonna get at. 5 That statement doesn't necessarily, you know -- 6 you'd agree with me that the deposit at Fontane 7 mine is actually considered to be a fairly large 8 talc deposit? 9 A It's big. Vertically, you're looking 10 at multiple levels that -- I can't remember 11 exactly, but you're looking at least -- at least 12 400 feet in terms of vertical extent in that 13 mine. And I take that to mean that there are 14 multiple ore horizons, which would be 15 interesting. I don't think you're gonna find a 16 talc deposit that's 400 feet thick. I mean, I 17 don't think that's happening. 18 So my interpretation of the 19 cross-section I've seen is that there are 20 multiple horizons within the rock unit that 21 contains the -- the talc. 22 Q Okay. So the statement you have, you 23 know, that the deposits were often small, that's 24 really more a generalization for the Val Chisone</p>	<p style="text-align: right;">Page 141</p> <p>1 the whole region? And, so, what do you do? You 2 take some samples, you go to the guy that owns 3 the mill and you say, "Um, I've got all this 4 really good talc I'd like to -- I've got to do 5 something with it. Will you buy it?" And if 6 they like it, they say, "Sure," and it just goes 7 right in with the product coming labeled Val 8 Chisone. 9 Q And -- 10 A Because it's the only mill in the 11 region. This happens all over the world. People 12 have smaller deposits, and they feed mills that 13 are actually being run to process ore from the 14 district's main mine. 15 Q And, sitting here, you have no evidence 16 to show that that actually happened -- 17 A No. 18 Q -- with respect to the Fontane? 19 A I'm just pointing out that that is a 20 very common characteristic -- 21 Q Okay. 22 A -- of mining in general. 23 Q But, without speculating, you can't 24 tell me that talc ore used for talcum powder</p>

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<p style="text-align: right;">Page 142</p> <p>1 sourced by Johnson &amp; Johnson came from anywhere 2 other than the Fontane mine; correct? 3 MS. O'DELL: 4 Object to the form. 5 A I'm not sure that -- that all the 6 documents actually say that. I think that some 7 of them are careful or, let's just say -- I think 8 some of them don't actually name the Fontane mine 9 by name. They -- they just talk about the 10 district or the -- the -- the valley, the Chisone 11 Valley. And I think that it's -- 12 This is sort of an interesting thing, 13 because it may be that -- that the ore that's 14 processed from the smaller occurrences might be 15 very, very, very high grade or it wouldn't have 16 been accepted at the mill. 17 MR. FROST: 18 Q But you have no evidence to show -- 19 A No. 20 Q -- one way or the other? 21 A No, other -- other than they talk about 22 small mines. And you don't -- you don't have a 23 small mine if there's nowhere to process the ore. 24 Q Who -- who talks about small mines?</p>	<p style="text-align: right;">Page 144</p> <p>1 A I think that -- 2 MS. O'DELL: 3 Object to the form. 4 A Right. I think today it's a family or 5 it was a family-operated enterprise. 6 MR. FROST: 7 Q Uh-huh. 8 A And, so, they own the Fontane mine and, 9 so, what they sell is gonna be attributed to the 10 Fontane mine. 11 Q Okay. Turn to page 5. The first full 12 sentence on the page starts, "The first 13 comprehensive overview of Vermont's talc deposits 14 were given by Chidester, Billings, and Cady in 15 1951" -- 16 A Right. 17 Q -- "and a review of the ultramafic 18 province of Vermont including its 19 serpentinite-associated talc and asbestos 20 deposits was published in Ratté in 1982." 21 Did I read that right? 22 A I think you did. I'm not sure I worded 23 it right, but -- 24 Q And then it continues, "The</p>
<p style="text-align: right;">Page 143</p> <p>1 A Well, it's in the literature. 2 Q The literature? 3 A Yeah. 4 Q The literature talks about small mines? 5 A Sure. 6 Q But not any of the documents from 7 Johnson &amp; Johnson or Imerys; correct? 8 A I think they may be mentioned in one of 9 the published papers. But that's characteristic 10 of -- of any district. You're gonna have large 11 mines and small mines. I mean, I can't think of 12 anywhere where you've just got one huge mine and 13 there never was anything else around it. 14 Q Okay. You'd agree with me the Fontane 15 mine has been mined, I think, for at least a 16 hundred years? 17 A Yes. 18 Q And it might even be longer? 19 A Yes. 20 Q And that's -- you know, any time that 21 evidence actually points to where the 22 Italian-sourced talc came from, it specifically 23 talks about the company that operates the Fontane 24 mine and the Fontane mine; correct?</p>	<p style="text-align: right;">Page 145</p> <p>1 consanguinity of talc and asbestos in such 2 deposits is further supported by the numerous 3 descriptions of both talc and asbestos in 4 deposits such as Bain (1934; 1942). The intimate 5 association of amphiboles, including those of 6 asbestiform habit with talc deposits derived from 7 serpentinites and related rocks, is discussed by 8 Van Gosen (2004)." 9 Correct? 10 A Right. 11 Q All right. So the way the last 12 sentence reads, you're not saying that every talc 13 rock is guaranteed to have asbestos and 14 amphiboles associated in it; correct? 15 A No, I'm not saying that. 16 Q Okay. All right. 17 I'm gonna mark -- 18 What exhibit are we on? 19 THE COURT REPORTER: 20 Eight. 21 (DEPOSITION EXHIBIT NUMBER 8 22 WAS MARKED FOR IDENTIFICATION.) 23 MR. FROST: 24 Q Mark this as Exhibit 8. And I'll --</p>

37 (Pages 142 to 145)

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<p style="text-align: right;">Page 146</p> <p>1 specifically turning your attention to page 33.  2 I believe it's 33, 34.  3 A My page numbers are --  4 MS. O'DELL:  5 Front and back, I believe.  6 A Yeah. I've got one with -- with one  7 page number on it.  8 Okay. I've got 33. Have you  9 highlighted it in yellow?  10 MR. FROST:  11 Q The copy I had was highlighted.  12 A Okay.  13 Q I didn't highlight it, but --  14 A Okay.  15 Q -- it's the only copy I had.  16 Is yours not highlighted?  17 MS. O'DELL:  18 No.  19 MR. FROST:  20 On page 33?  21 MS. O'DELL:  22 No.  23 MR. FROST:  24 Huh. All right. Do you want to</p>	<p style="text-align: right;">Page 148</p> <p>1 A Back to back.  2 Q And if you look down at the section  3 called "Talc in Soapstones," you'll note on the  4 second paragraph --  5 A Right. Right.  6 Q -- it says, "The talc-soapstone  7 mineralization coincide with the described above  8 for asbestos and is included within the  9 ultramafic process."  10 Correct?  11 A Right.  12 Q So he's referencing specifically with  13 the talc-soapstone mineralization that, you know,  14 it relates to the asbestos discussed above.  15 Right?  16 A Right.  17 Q If you turn to the top of page 34,  18 Ratté states that the talc mines of Windsor  19 Minerals, Inc., in Hammondsville and Ludlow, a  20 Vermont Talc Company mine in Andover, and the  21 Vermont Soapstone Company Mine in Chester are  22 included in the southern talc mining district."  23 Correct?  24 A That's what he says, sure.</p>
<p style="text-align: right;">Page 147</p> <p>1 mark -- maybe we'll mark that one, then. It  2 doesn't really -- unless you care. I don't -- I  3 don't care.  4 MS. O'DELL:  5 If it's -- that's fine if you -- if  6 you've marked that one.  7 MR. FROST:  8 Yeah. I was going to say, I mean, it  9 actually speeds things up --  10 MS. O'DELL:  11 My hope --  12 MR. FROST:  13 -- if I point him in the right place.  14 MS. O'DELL:  15 Yeah. That's fine.  16 MR. FROST:  17 Q Okay. So you'll agree with me that the  18 top of the -- of the Ratté -- here on page 33,  19 you know, Ratté's talking about the asbestos  20 deposits, and that's what you mentioned in your  21 paper; correct?  22 A Yeah. He does asbestos and talc in  23 this paper.  24 Q Okay.</p>	<p style="text-align: right;">Page 149</p> <p>1 Q And he's distinguishing the  2 talc-soapstone mineralization that he coincides  3 with the asbestos from the southern -- what does  4 he call it? -- talc mining district. Correct?  5 MS. O'DELL:  6 Object to the form.  7 A I'm not sure that that's what he's  8 saying. But I'll accept that.  9 MR. FROST:  10 Q Yeah. Okay.  11 A But -- but, before we go on, I'd like  12 to point out what he says in the second full  13 paragraph on that page.  14 Q Okay. On which page?  15 A 34.  16 Q 34? Okay.  17 A He warns about the -- the -- the  18 consequences of the occurrence of these minerals  19 together.  20 Q Okay. These -- I don't understand  21 where he's warning. He says Vermont leads the  22 nation in talc production.  23 A No.  24 Q Products manufactured from Vermont are</p>

38 (Pages 146 to 149)

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<p style="text-align: right;">Page 150</p> <p>1 popular --</p> <p>2 A No. It's the paragraph that starts</p> <p>3 "because of the natural mineralogical</p> <p>4 associations."</p> <p>5 Q Okay. So not the second paragraph?</p> <p>6 A Second full paragraph. At least,</p> <p>7 that's what it is on mine.</p> <p>8 No. I'm sorry. Third. Go ahead.</p> <p>9 MS. O'DELL:</p> <p>10 Why don't you read the section you're</p> <p>11 referring to?</p> <p>12 A All right.</p> <p>13 "Because of the natural mineralogical</p> <p>14 associations of serpentine asbestos and talc,</p> <p>15 similar environmental health concerns" --</p> <p>16 Q Uh-huh.</p> <p>17 A Et cetera, et cetera.</p> <p>18 So he's pointing out the fact that</p> <p>19 asbestos and talc occur in similar environments</p> <p>20 and you'd better watch out.</p> <p>21 Q Okay. But you agree with me he's</p> <p>22 specifically coinciding the deposits together,</p> <p>23 when he's talking about the talc-soapstone</p> <p>24 mineralization and the relationship to the</p>	<p style="text-align: right;">Page 152</p> <p>1 deal.</p> <p>2 And probably the largest asbestos mine</p> <p>3 that ever was in Vermont was on a mountain called</p> <p>4 Belvidere Mountain. And there was an early talc</p> <p>5 mine on Belvidere Mountain in the serpentinite.</p> <p>6 But if you -- if you ask somebody about</p> <p>7 Belvidere Mountain, they're gonna say, "Oh, yeah,</p> <p>8 that's a great old big asbestos mine." And, yet,</p> <p>9 there was talc there.</p> <p>10 And I think Ratté, Ratté, I think, was</p> <p>11 a pretty good state geologist, and I think he --</p> <p>12 he was a visionary and was clearly concerned</p> <p>13 about the occurrence of these two minerals</p> <p>14 together. And that was why I point this out.</p> <p>15 Q Okay. But you agree with me, as he's</p> <p>16 talking about --</p> <p>17 A There's definitely a central and a</p> <p>18 southern district also.</p> <p>19 Q Okay. And these are different --</p> <p>20 different districts in the talc --</p> <p>21 I mean, is it fair to say as you're</p> <p>22 moving south along the Appalachians --</p> <p>23 A They're geographically different.</p> <p>24 MS. O'DELL:</p>
<p style="text-align: right;">Page 151</p> <p>1 asbestos mines, he specifically is excepting out</p> <p>2 of that talc mines of southern Vermont; correct?</p> <p>3 MS. O'DELL:</p> <p>4 Object to the form.</p> <p>5 A I'm not -- I'm not sure that's what</p> <p>6 he's doing.</p> <p>7 MR. FROST:</p> <p>8 Q Well, that's certainly how the document</p> <p>9 reads, isn't it?</p> <p>10 MS. O'DELL:</p> <p>11 Object to the form.</p> <p>12 A If you read it that way, okay. I read</p> <p>13 that last paragraph as being inclusive of the</p> <p>14 ultramafic belt because I think this whole</p> <p>15 section is the Vermont ultramafic belt.</p> <p>16 MR. FROST:</p> <p>17 Q But you agree with me he's breaking it</p> <p>18 into two different districts, the southern talc</p> <p>19 mining district --</p> <p>20 A Yeah. I think you can actually break</p> <p>21 it into three. And the reason he does that is</p> <p>22 that in northern Vermont, you have a district</p> <p>23 that is dominated by asbestos mining and with --</p> <p>24 with some talc mining, but not a -- not a great</p>	<p style="text-align: right;">Page 153</p> <p>1 Excuse me.</p> <p>2 MR. FROST:</p> <p>3 Q Yes. The geo- -- the -- the two or</p> <p>4 three different talc and chrysotile deposits, you</p> <p>5 know, change as you move south; correct?</p> <p>6 MS. O'DELL:</p> <p>7 Object to the form.</p> <p>8 MR. FROST:</p> <p>9 Q They change and they're different?</p> <p>10 MS. O'DELL:</p> <p>11 Object to the form.</p> <p>12 A I'm not --</p> <p>13 MS. O'DELL:</p> <p>14 Would you mind --</p> <p>15 Excuse me.</p> <p>16 Could you -- would you repeat your</p> <p>17 question?</p> <p>18 MR. FROST:</p> <p>19 Sure.</p> <p>20 Q And you'd agree with me, based on what</p> <p>21 Ratté is saying here, you know, if there's a</p> <p>22 difference between, you know, the northern</p> <p>23 belt --</p> <p>24 Actually, I specifically think he talks</p>

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<p style="text-align: right;">Page 154</p> <p>1 about the Belvidere, you know, Mountain --</p> <p>2 A Yeah. Sure.</p> <p>3 Q -- versus the southern talc districts;</p> <p>4 right?</p> <p>5 A He does. But -- but he doesn't say</p> <p>6 that the geology is different.</p> <p>7 Q Well, he defines them as separate</p> <p>8 geological districts, doesn't he?</p> <p>9 A He does. But, I mean, you can go to</p> <p>10 the state of Nevada, and there's 150 different</p> <p>11 gold districts, but they're the same in terms of</p> <p>12 geology. It's a geographic separation of the --</p> <p>13 the -- the -- the areas that tend to have gold</p> <p>14 mineralization.</p> <p>15 Q Okay.</p> <p>16 A But the mineralization is the same.</p> <p>17 Same type.</p> <p>18 Q But you'd agree with me that Ratté is</p> <p>19 very specifically stating that the talc mines of</p> <p>20 southern Wind- -- of Windsor Minerals in the</p> <p>21 southern mining district are different than what</p> <p>22 he talks about with the soapstone mineralization</p> <p>23 district and the asbestos mining district of the</p> <p>24 Upper Missisquoi River Valley.</p>	<p style="text-align: right;">Page 156</p> <p>1 comment and not a peer-reviewed publication;</p> <p>2 right?</p> <p>3 MS. O'DELL:</p> <p>4 Object to the form.</p> <p>5 A I can't say that. It isn't a</p> <p>6 peer-reviewed publication, but you can't say that</p> <p>7 it wasn't peer-reviewed before they were willing</p> <p>8 to publish it. But it isn't a publication. It's</p> <p>9 a response.</p> <p>10 MR. FROST:</p> <p>11 Q Yeah. I was gonna say you'd agree with</p> <p>12 me it's a specific comment or response to</p> <p>13 something --</p> <p>14 A Yes.</p> <p>15 Q -- else that's done; right?</p> <p>16 Now, will you also agree with me</p> <p>17 that -- it's fairly short, but it never</p> <p>18 specifically mentions any of the mines from</p> <p>19 Vermont that were used to source talcum powder</p> <p>20 for Johnson; right?</p> <p>21 A I don't think there's a specific mine</p> <p>22 mentioned in there.</p> <p>23 Q Okay.</p> <p>24 Mark this as Exhibit 10.</p>
<p style="text-align: right;">Page 155</p> <p>1 A Yeah.</p> <p>2 MS. O'DELL:</p> <p>3 Object to the form.</p> <p>4 MR. FROST:</p> <p>5 Q Okay.</p> <p>6 A I would be willing to say that he's</p> <p>7 making a distinction between the two.</p> <p>8 Q Okay.</p> <p>9 (DEPOSITION EXHIBIT NUMBER 9</p> <p>10 WAS MARKED FOR IDENTIFICATION.)</p> <p>11 MR. FROST:</p> <p>12 Q I'll mark as Exhibit 9 --</p> <p>13 A He pronounces his name "rat-TAY."</p> <p>14 Q It's "rat-TAY"?</p> <p>15 A Yeah.</p> <p>16 Q He's French, I guess?</p> <p>17 A Yeah.</p> <p>18 Q Do you recognize this to be --</p> <p>19 Do you have it yet? Here it is.</p> <p>20 A No.</p> <p>21 Q Do you recognize Exhibit 9 to be the</p> <p>22 Bain 1934?</p> <p>23 A Yeah.</p> <p>24 Q Okay. Do you agree that this is a</p>	<p style="text-align: right;">Page 157</p> <p>1 (DEPOSITION EXHIBIT NUMBER 10</p> <p>2 WAS MARKED FOR IDENTIFICATION.)</p> <p>3 MR. FROST:</p> <p>4 Q And, again, do you recognize this to be</p> <p>5 the Bain 1942?</p> <p>6 A Sure.</p> <p>7 Q And, again, you'd agree with me that</p> <p>8 this paper does not address any of the talc mines</p> <p>9 actual utilized by Johnson &amp; Johnson to source</p> <p>10 talc for its talcum powder; correct?</p> <p>11 MS. O'DELL:</p> <p>12 Object to the form.</p> <p>13 A I don't think it specifically names</p> <p>14 any. I think that the date of the article would</p> <p>15 kind of preclude most of that.</p> <p>16 MR. FROST:</p> <p>17 Q Turn to page 256.</p> <p>18 A Okay.</p> <p>19 Q Second column, the second paragraph</p> <p>20 after the one above Belvidere Mountain Asbestos</p> <p>21 district. Do you see where I am?</p> <p>22 MS. O'DELL:</p> <p>23 So you're on the right-hand side?</p> <p>24 MR. FROST:</p>

40 (Pages 154 to 157)



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<p style="text-align: right;">Page 158</p> <p>1           Yeah, right-hand side.</p> <p>2     A       Right-hand side.</p> <p>3     MR. FROST:</p> <p>4     Q       It's the last paragraph before</p> <p>5       Belvidere Mountain asbestos district. It's</p> <p>6       the -- if you're going up --</p> <p>7     A       Oh, I see it.</p> <p>8     Q       -- it's the second paragraph up.</p> <p>9     A       Okay. Right.</p> <p>10    Q       The second sentence reads, "Every</p> <p>11       ultrabasic intrusive has a talc deposit, and</p> <p>12       about one-third have some fibrous magnes</p> <p>13       mineral."</p> <p>14    A       Okay.</p> <p>15    Q       It continues down below, "The</p> <p>16       occurrences illustrate progressively increased</p> <p>17       intensity of change from talc to asbestos in</p> <p>18       proportionate amounts of Belvidere Mountain" --</p> <p>19       That's what we just talked about.</p> <p>20       -- "to completely" --</p> <p>21       How do you pronounce that word?</p> <p>22    MS. O'DELL:</p> <p>23       Did you skip a sentence?</p> <p>24    MR. FROST:</p>	<p style="text-align: right;">Page 160</p> <p>1     Q       Yeah.</p> <p>2       Okay. So steatitized bodies at Chester</p> <p>3       in Windham; correct?</p> <p>4     A       Correct.</p> <p>5     Q       So, effectively, what Bain is saying</p> <p>6       here is that -- you know, he's not saying you</p> <p>7       find fibrous magnesium minerals in every talc</p> <p>8       deposit in Vermont; right?</p> <p>9     A       That's right.</p> <p>10    Q       And --</p> <p>11    A       I'm not sure to what degree he's</p> <p>12       talking about that. Is he -- if he's talking --</p> <p>13       See, this is an Economic Geology</p> <p>14       publication.</p> <p>15    Q       Okay.</p> <p>16    A       It's on, you know, structural</p> <p>17       relationship of ore bodies. And he may be</p> <p>18       referring to economic asbestos since that's what</p> <p>19       this whole publication is about. I don't see how</p> <p>20       he could say that there is not a single grain of</p> <p>21       asbestos in -- in a -- in talc deposits once you</p> <p>22       get 15 miles south of Belvidere Mountain, let's</p> <p>23       say.</p> <p>24    Q       Okay.</p>
<p style="text-align: right;">Page 159</p> <p>1           I did. I skipped one. Because I -- we</p> <p>2       can -- I can read it if you want, but --</p> <p>3     MS. O'DELL:</p> <p>4       I just wanted to make sure we --</p> <p>5     MR. FROST:</p> <p>6       No, no. We're reading it right.</p> <p>7     MS. O'DELL:</p> <p>8       -- we're all staying together.</p> <p>9     MR. FROST:</p> <p>10    Yeah.</p> <p>11    A       I'm not sure which one you're talking</p> <p>12       about.</p> <p>13    MR. FROST:</p> <p>14    Q       Straight as a S-T-E-A-T-I-T-I-Z-E-D.</p> <p>15    A       I can't see it. It's so fine.</p> <p>16    Q       I looked it up. I know it means talc,</p> <p>17       but I think it's just an older word.</p> <p>18    A       Yeah.</p> <p>19    Q       "State-a-zide." Stat- -- statized</p> <p>20       [sic] bodies?</p> <p>21    A       Oh. You're talking about steatitized.</p> <p>22    Q       Steatitized. There you go. Okay.</p> <p>23    A       Yeah. That's just the conversion of</p> <p>24       something to talc.</p>	<p style="text-align: right;">Page 161</p> <p>1     A       That doesn't really make good sense.</p> <p>2     Q       You agree with me that I read it</p> <p>3       correctly.</p> <p>4     A       You --</p> <p>5     Q       What he's saying --</p> <p>6     A       Yeah. Yeah. You read it --</p> <p>7     Q       -- is that you'll get fibrous magnesium</p> <p>8       in about one-third of the talc deposits; correct?</p> <p>9     MS. O'DELL:</p> <p>10    Object to the form.</p> <p>11    MR. FROST:</p> <p>12    Q       That's what Bain says.</p> <p>13    A       Correct.</p> <p>14    Q       And then he also talks about the</p> <p>15       fact --</p> <p>16    A       Let me -- let me back up.</p> <p>17       If he just says fibrous magnes- --</p> <p>18       magnesium?</p> <p>19    Q       Yeah. Magnesian mineral.</p> <p>20    A       Okay. How about those that aren't</p> <p>21       magnesian only? Suppose -- they're calcium</p> <p>22       magnesian or --</p> <p>23    Q       Sir, we're just reading what Bain is</p> <p>24       saying.</p>

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<p style="text-align: right;">Page 162</p> <p>1 A I know. But that would -- what he's</p> <p>2 saying specifically would be minerals that were</p> <p>3 magnesian, period.</p> <p>4 Q Okay.</p> <p>5 A That would be chrysotile. And that may</p> <p>6 be -- that may be what he's saying. He may be</p> <p>7 referring to chrysotile and not the amphiboles.</p> <p>8 Q But, again, I'm reading what Bain is</p> <p>9 saying correctly?</p> <p>10 A Correct.</p> <p>11 Q Okay. And then he also talks about</p> <p>12 that there's a difference in the occurrence of --</p> <p>13 he specifically says talc and asbestos in</p> <p>14 proportionate amounts of Belvidere Mountain,</p> <p>15 which we know is the chrysotile mine, and then he</p> <p>16 talks about two completely sterilized [sic]</p> <p>17 bodies" --</p> <p>18 A Right.</p> <p>19 Q I'm sure I pronounced that incorrectly.</p> <p>20 -- "at Chester and Windham."</p> <p>21 Correct?</p> <p>22 So what he's saying is there's a</p> <p>23 difference between the deposit at Belvidere and</p> <p>24 the deposits found south, which are completely --</p>	<p style="text-align: right;">Page 164</p> <p>1 (DEPOSITION EXHIBIT NUMBER 11</p> <p>2 WAS MARKED FOR IDENTIFICATION.)</p> <p>3 MR. FROST:</p> <p>4 Q You recognize this article?</p> <p>5 A Yes.</p> <p>6 Q And, again, you'd agree with me that</p> <p>7 Van Gosen never talks specifically about any of</p> <p>8 the talc mines that have been utilized by</p> <p>9 Johnson &amp; Johnson for talcum powder; correct?</p> <p>10 MS. O'DELL:</p> <p>11 Object to the form.</p> <p>12 A I believe that he does not mention</p> <p>13 specific mines.</p> <p>14 MR. FROST:</p> <p>15 Okay. Mark this as Exhibit 12.</p> <p>16 And leave the 2010 IARC.</p> <p>17 To save space and so I could put it all</p> <p>18 in one box, I didn't bring an extra copy.</p> <p>19 MS. O'DELL:</p> <p>20 Yeah, no problem. Just give me a</p> <p>21 minute to get mine.</p> <p>22 MR. FROST:</p> <p>23 Yes.</p> <p>24 MS. O'DELL:</p>
<p style="text-align: right;">Page 163</p> <p>1 and I think we had defined steatitized as the</p> <p>2 conversion of talc.</p> <p>3 A Well, it was only Windham.</p> <p>4 Q Okay. And the -- and Windham is the</p> <p>5 area we're talking about; correct?</p> <p>6 A Right.</p> <p>7 Q Okay.</p> <p>8 A You know that if you go -- go back and</p> <p>9 read the publications on Belvidere Mountain,</p> <p>10 there were zones of pure talc six feet thick in</p> <p>11 the asbestos mountain. And had they -- had they</p> <p>12 wanted to, they could have probably built a mill</p> <p>13 that would have -- would have recovered the talc.</p> <p>14 Q Okay. But nobody ever --</p> <p>15 Johnson &amp; Johnson never sourced any</p> <p>16 talc from Belvidere; correct?</p> <p>17 A Correct.</p> <p>18 MR. FROST:</p> <p>19 And I'll mark the Van Gosen article.</p> <p>20 What are we on now? Ten?</p> <p>21 THE COURT REPORTER:</p> <p>22 Eleven.</p> <p>23 MR. FROST:</p> <p>24 Eleven.</p>	<p style="text-align: right;">Page 165</p> <p>1 And that's Exhibit 12?</p> <p>2 MR. FROST:</p> <p>3 Yes.</p> <p>4 (DEPOSITION EXHIBIT NUMBER 12</p> <p>5 WAS MARKED FOR IDENTIFICATION.)</p> <p>6 MR. FROST:</p> <p>7 Q I'll direct your attention to page 283,</p> <p>8 sir. I take it you recognize this as the IARC --</p> <p>9 A Right.</p> <p>10 Q -- 2010 document?</p> <p>11 MS. O'DELL:</p> <p>12 I'm sorry. You have 2010 or 2012?</p> <p>13 MR. FROST:</p> <p>14 2010.</p> <p>15 MS. O'DELL:</p> <p>16 Excuse me. Give me just one more</p> <p>17 second.</p> <p>18 A And which page did you say?</p> <p>19 MR. FROST:</p> <p>20 Q 283.</p> <p>21 A 283? Okay.</p> <p>22 MR. FROST:</p> <p>23 You there, Leigh?</p> <p>24 MS. O'DELL:</p>

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<p style="text-align: right;">Page 166</p> <p>1 Yeah.</p> <p>2 MR. FROST:</p> <p>3 You got it? All right.</p> <p>4 Q About halfway down, there's the -- the</p> <p>5 sentence starts "Chlorite in amphiboles."</p> <p>6 A Yes.</p> <p>7 Q And it reads, "Chlorite in amphiboles</p> <p>8 are usually associated with this type of talc</p> <p>9 deposit, although they are commonly separated in</p> <p>10 space from talc ore (Vermont). The amphiboles</p> <p>11 may or may not be asbestiform, depending on the</p> <p>12 local geological history."</p> <p>13 Did I read that right?</p> <p>14 A Correct.</p> <p>15 Q So what they're saying is you have to</p> <p>16 look at the individual deposit; right?</p> <p>17 A Correct.</p> <p>18 Q All right. So I guess the summary of</p> <p>19 all of this is, you know, local geology is</p> <p>20 important. You can look at the belt, but you</p> <p>21 actually have to look at local geology, too;</p> <p>22 right?</p> <p>23 A Absolutely.</p> <p>24 Q Okay. The next paragraph on page 5 of</p>	<p style="text-align: right;">Page 168</p> <p>1 there is one that -- that shows that there was a</p> <p>2 period when they did -- did use cosmetic grade</p> <p>3 talc from the Johnson mine.</p> <p>4 Q You'd agree with me that the Johnson</p> <p>5 mine was an industrial talc mine; correct?</p> <p>6 MS. O'DELL:</p> <p>7 Object to the form.</p> <p>8 Repeat your question, please.</p> <p>9 MR. FROST:</p> <p>10 Q You'd agree with me that the Johnson</p> <p>11 mine was --</p> <p>12 A I think, primarily.</p> <p>13 Q Yeah. And you'd agree with me that</p> <p>14 the -- the talc ore from the Johnson mine was</p> <p>15 actually sent to a different mill?</p> <p>16 MS. O'DELL:</p> <p>17 Object to the form.</p> <p>18 A I'm not sure that that's correct.</p> <p>19 They -- they -- the Johnson mill had a flotation</p> <p>20 circuit in it that might could have been used to</p> <p>21 come up with some cosmetic grade rock or product.</p> <p>22 MR. FROST:</p> <p>23 Q Okay. You can't point me, sitting here</p> <p>24 right now, to a single document --</p>
<p style="text-align: right;">Page 167</p> <p>1 your report, the second paragraph of that</p> <p>2 page --</p> <p>3 A We're done with IARC?</p> <p>4 Q Yeah, we're done for now. I'd keep</p> <p>5 that close. I think that comes up --</p> <p>6 A Okay.</p> <p>7 Q -- a bunch of times, but...</p> <p>8 A Okay. Which page did you say? Nine?</p> <p>9 Q Page 5.</p> <p>10 A Oh, 5.</p> <p>11 Okeydoke.</p> <p>12 Q In the second paragraph you note at the</p> <p>13 bottom that, "Talc was sourced from the following</p> <p>14 Vermont mines from 1965 to 2003," and the first</p> <p>15 one you include is Johnson.</p> <p>16 A Right.</p> <p>17 Q Is that a mistake, sir, or do you have</p> <p>18 any evidence to show that talc ever was sourced</p> <p>19 by Johnson &amp; Johnson for talcum powder from the</p> <p>20 Johnson mine?</p> <p>21 A I think that there's a document that</p> <p>22 shows that.</p> <p>23 Q Do you know what document that is?</p> <p>24 A I don't have the number in my head, but</p>	<p style="text-align: right;">Page 169</p> <p>1 A No. I think --</p> <p>2 Q -- to base that opinion on?</p> <p>3 A I think that --</p> <p>4 MS. O'DELL:</p> <p>5 I'm sorry.</p> <p>6 A -- Ms. O'Dell may be looking for it.</p> <p>7 But there is -- there is such a document. I</p> <p>8 found it.</p> <p>9 MR. FROST:</p> <p>10 Q What document are you looking at?</p> <p>11 A (Produces document.)</p> <p>12 Q Which one are you referring to it as?</p> <p>13 This one, the J&amp;J Exhibit 4.</p> <p>14 MS. O'DELL:</p> <p>15 That's what I've -- I've seen it</p> <p>16 referred to as is Exhibit 4. I'm sure there are</p> <p>17 other transcripts that have referred to it</p> <p>18 various ways.</p> <p>19 MR. FROST:</p> <p>20 Okay. We'll call it the J&amp;J Exhibit --</p> <p>21 Exhibit J&amp;J-4 for now.</p> <p>22 Q Do you mind if I read this, sir?</p> <p>23 A No. Please.</p> <p>24 Down at the bottom of one of the pages,</p>

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<p style="text-align: right;">Page 170</p> <p>1 there's actually the mention of the Johnson mine  2 and the fact that there was some cosmetic talc  3 production there.  4 Q Okay. I see what you're talking about  5 here, sir.  6 MS. O'DELL:  7 I think he may be talking about another  8 page, Jack. Take a look at the whole thing.  9 MR. FROST:  10 We'll mark this as whatever exhibit  11 we're on. Thirteen?  12 Just put it there. I was gonna say,  13 we'll -- we'll add another exhibit number to  14 this -- this document when --  15 MS. O'DELL:  16 Might be worthwhile to put Cook 13 on  17 it or something like that.  18 MR. FROST:  19 That's right. Oh, it says "Cook."  20 MS. O'DELL:  21 Oh, it does?  22 (DEPOSITION EXHIBIT NUMBER 13  23 WAS MARKED FOR IDENTIFICATION.)  24 MR. FROST:</p>	<p style="text-align: right;">Page 172</p> <p>1 A Right.  2 Q -- or the numbers of talc that are  3 coming from the Johnson mine.  4 A Right.  5 Q And it says Grade 500 and Grade 549.  6 A Right.  7 Q What evidence do you have to show that  8 Grade 500 and Grade 549 were actually utilized by  9 Johnson &amp; Johnson in its cosmetic talcum powder  10 products at issue in this case?  11 MS. O'DELL:  12 Object to the form.  13 A I'm not saying that.  14 MR. FROST:  15 Q Okay. And, in fact, in most of the  16 documents, and you refer to it in your report as  17 Grade 66, is the Vermont ore that was used by  18 Johnson &amp; Johnson; correct?  19 A I think so.  20 Q Further down on page 5 of your  21 report -- it's the end of the fourth paragraph --  22 A Okay.  23 Q -- you state, "There's ample evidence  24 that the main and east Argonaut ore bodies are</p>
<p style="text-align: right;">Page 171</p> <p>1 Q Okay. I hand you this document.  2 A Okay. Thank you, sir.  3 Q And, so, you're relying on, it looks  4 like, the second page of it, if you want to open  5 the document.  6 MS. O'DELL:  7 Why -- why don't you take a look,  8 Doctor, and --  9 MR. FROST:  10 Q Yeah. I was gonna say.  11 Can you show me where -- what you're  12 relying on to say that talc from the Johnson mine  13 was utilized by Johnson &amp; Johnson for its final  14 talcum powder products?  15 A It's at the bottom of page 3.  16 Q Let me see that, sir.  17 A But I think that there's actually more.  18 I think that there's another document that  19 actually puts a limit, a time limit on when they  20 were securing cosmetic talc there. It's a short  21 period.  22 Q If I can turn your attention to the  23 second page of this document, it notes -- look  24 right here -- it notes the grades of talc --</p>	<p style="text-align: right;">Page 173</p> <p>1 segments of the same body" -- sorry - "same ore  2 body swarm, making them and talc derived from  3 them essentially equivalent."  4 A Right.  5 Q What do you mean by -- what's the --  6 what's the measure of equivalency you're using  7 here?  8 A The Argonaut ore body is actually a  9 zone of talc that wraps around a -- a remaining  10 core of serpentinite. And, so, if you're mining  11 on one side of the serpentinite, you've got one  12 pit, and you're mining the same rock on the other  13 side of the serpentinite. And that's -- that's  14 all I was saying. You have one big ore body  15 there.  16 Q Okay. Do you have any -- any  17 geological surveys or any, you know, mine  18 drilling data you can point me at to show that  19 the two bodies were, you know, identical, or  20 you're just saying they were part of the same  21 generalized formation?  22 A Well, you used the word "identical."  23 And I -- you know, we try not to use --  24 Q I guess I should -</p>

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<p style="text-align: right;">Page 174</p> <p>1 A -- that word in geology.</p> <p>2 Q -- use -- use "equivalent"?</p> <p>3 A Yeah.</p> <p>4 Q So is the equivalency purely that they</p> <p>5 form from the same, you know, the general -- the</p> <p>6 same general formation deposit?</p> <p>7 A Right. I mean --</p> <p>8 MS. O'DELL:</p> <p>9 Object to the form.</p> <p>10 A Yeah. Your own documents indicate</p> <p>11 this. You know, there's the 2008 report on</p> <p>12 Argonaut that goes through the geology. But</p> <p>13 you've got -- you've got geologic data that goes</p> <p>14 back, I guess, to 1973 or '4 related to Argonaut</p> <p>15 when it was even an underground mine. And it's</p> <p>16 pretty clear that, as mining progressed there,</p> <p>17 that there was one very large ore body there.</p> <p>18 And -- but it has a piece of serpentinite left,</p> <p>19 as a -- as a lot of these things do.</p> <p>20 Because the ore-forming process works</p> <p>21 in toward the -- toward the center of the</p> <p>22 serpentinite, hoping to eat it up entirely.</p> <p>23 You know, ideally, there wouldn't be any</p> <p>24 serpentinite left. That doesn't happen often.</p>	<p style="text-align: right;">Page 176</p> <p>1 sure --</p> <p>2 Would you finish, Doctor, and then you</p> <p>3 can go, Jack? I'm sorry. It just --</p> <p>4 MR. FROST:</p> <p>5 Yeah.</p> <p>6 MS. O'DELL:</p> <p>7 -- seems like he wasn't finished</p> <p>8 trying --</p> <p>9 MR. FROST:</p> <p>10 Oh. I thought he finished.</p> <p>11 MS. O'DELL:</p> <p>12 -- to explain what he was saying.</p> <p>13 A Yeah. Well, yeah, to sum it up, I</p> <p>14 would say that Argonaut is -- is looking at one</p> <p>15 large ore deposit that's being mined in two pits</p> <p>16 that are separated, because part of the</p> <p>17 serpentinite was not altered to talc. And, so,</p> <p>18 it's in place and it kind of protrudes in, and</p> <p>19 you've got the two big pits on either side of it.</p> <p>20 MR. FROST:</p> <p>21 Q And you're not necessarily saying that</p> <p>22 the talc from one pit is, you know, exactly the</p> <p>23 same as the other. They don't have the same --</p> <p>24 they don't necessarily have the same percentage</p>
<p style="text-align: right;">Page 175</p> <p>1 MR. FROST:</p> <p>2 Q Yeah. I -- I think we can both agree</p> <p>3 that --</p> <p>4 A Sure.</p> <p>5 Q -- you tend to have a serpentinite</p> <p>6 core --</p> <p>7 A Sure.</p> <p>8 Q -- in a lot of these deposits.</p> <p>9 A And, so, that's what it looks like when</p> <p>10 you -- when you look at a map of the mine as it</p> <p>11 progressed. As it was developed, they came in</p> <p>12 and began to -- to mine in an open pit more or</p> <p>13 less where the old underground mine was. But</p> <p>14 then if you -- if you keep looking, this open pit</p> <p>15 expands, and you've got a major working on one</p> <p>16 side of the serpentinite and then one on the</p> <p>17 other side.</p> <p>18 Q All right. So that's the essential</p> <p>19 equivalence is that it's --</p> <p>20 A It's all one big deposit.</p> <p>21 Q -- one geological deposit?</p> <p>22 You're not necessarily --</p> <p>23 MS. O'DELL:</p> <p>24 Excuse me. Sorry, y'all. Just make</p>	<p style="text-align: right;">Page 177</p> <p>1 of talc, the same percentage of other minerals,</p> <p>2 you know, chlorite, for example, things like</p> <p>3 that; right?</p> <p>4 MS. O'DELL:</p> <p>5 Object to the form.</p> <p>6 A I think you can go to any of the mines</p> <p>7 and say that.</p> <p>8 MR. FROST:</p> <p>9 Q Yeah.</p> <p>10 A You can go to the north end, it will be</p> <p>11 slightly different than the south end, or maybe</p> <p>12 it won't be, but --</p> <p>13 Q That's -- that's what I'm getting at</p> <p>14 is, you know, even within the mineral deposit,</p> <p>15 you can have changes of talc composition.</p> <p>16 A That is why it is so important to do</p> <p>17 your drilling and to analyze your core, analyze</p> <p>18 your -- your blast hole drills --</p> <p>19 Q Okay.</p> <p>20 A -- and drill cuttings.</p> <p>21 Q I agree.</p> <p>22 A I mean, you really need to be doing</p> <p>23 that.</p> <p>24 Q All right. Next sentence on page 5,</p>

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<p style="text-align: right;">Page 178</p> <p>1 you talk about "The Johnson mine as well as the 2 Hammondsville, Hamm, Rainbow, and Argonaut mines 3 exploited talc deposits that are closely 4 associated with serpentinite bodies. Asbestos 5 minerals, including chrysotile, actinolite, 6 tremolite and anthophyllite, occur in 7 talc-bearing serpentinites." 8 And you're saying that, as a 9 generalization, that, you know, serpentinite 10 obviously is a serpentine mineral, but -- 11 So you're not saying -- you're not 12 saying that every deposit that has converted from 13 serpentinite will always have each one of these 14 particular minerals in it; correct? 15 A No, I'm not saying that. 16 Q And I think we just talked about you 17 have to look at the local geology; right? 18 A That's correct. 19 Q Turning to page 6, under "Mining and 20 Talc Composition" -- 21 A Okay. 22 Q -- third paragraph down starts, "On a 23 daily basis." 24 A Okay.</p>	<p style="text-align: right;">Page 180</p> <p>1 A And, so, the -- the loader operator has 2 got to make some -- some very important decisions 3 as -- as he's mining. And -- and in many mines 4 it's up to the geologist or the mine 5 superintendent to make sure the loader operator 6 knows where the ore is. And oftentimes they use 7 spray paint, because the geologist may be -- may 8 be pretty good about knowing where you've got 9 chlorite-rich rock, or maybe he's seen some 10 asbestos. And, so, he'll spray-paint a line and 11 tell the operator, "Do not cross that line." 12 Q And, then, that's what I was gonna say. 13 It's not the miner himself who's determining -- 14 it's not the guy who's the load operator who is 15 saying where to go. There's actually a geologist 16 or a mine planner or a supervisor? 17 A I said there should be. 18 Q Okay. 19 A I didn't say there was. We can always 20 hope that there is. 21 Q So -- 22 A But, in reality, it isn't always the 23 case. 24 Q But, in general mine theory, there</p>
<p style="text-align: right;">Page 179</p> <p>1 Q Okay. "On a daily basis, the boundary 2 between ore and waste is often determined 3 visually by mining equipment operator based on 4 his experience with that particular ore type. It 5 is a common practice for some mines for the 6 geologists to spray paint lines or otherwise mark 7 the boundaries between ore and non-ore. Although 8 the miner" -- I'm sorry -- "although, to the 9 miner, the rock may look the same on either side 10 of that line, these marks guide him through his 11 shift." 12 Did I read that right? 13 A Yes. 14 Q And you'll agree with me there was 15 actually more done than just, you know, 16 visualization of the talc? You had just talked 17 before about drilling and -- 18 A Well, I was really referring to the guy 19 that's actually doing the mining. The -- the 20 mining is done with a loader and a truck. And 21 somehow the guy running the loader has got to 22 know whether this load goes to the mill or goes 23 to the -- the waste dump. 24 Q Yep.</p>	<p style="text-align: right;">Page 181</p> <p>1 should be a geologist, a supervisor, or somebody 2 who comes up with the daily shift plan or the 3 short-term mine plan; correct? 4 A The -- yes, there should be someone 5 that alerts the person doing the mining to what 6 he should be mining and what he should be -- be 7 telling the train operator or whatever, take this 8 load to the dump. 9 Q Yeah. And that geologist would be 10 looking at drill core samples, blast core 11 samples, I'm sure geological models, things like 12 this to determine, you know, where they'll be 13 mining in that particular shift or where the ore 14 will be? Is that -- that fair? 15 MS. O'DELL: 16 Object to the form. 17 A He -- he had better be using all the 18 data that's available to him for that part of the 19 mine. 20 MR. FROST: 21 Q Okay. 22 A And it can be all or part of what you 23 mentioned. 24 Q Yeah. And one of the ways that's --</p>



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<p style="text-align: right;">Page 182</p> <p>1 you know, I think nowadays, I believe they use</p> <p>2 GPSs and things like that, and the buckets tell</p> <p>3 them exactly where to go; right?</p> <p>4 MS. O'DELL:</p> <p>5 Object to the form.</p> <p>6 A There are places in the world where you</p> <p>7 can do that. I'm not sure that that's -- that</p> <p>8 that would be easy to do in a talc open-pit</p> <p>9 operation.</p> <p>10 MR. FROST:</p> <p>11 Q But, you know, that's just one of the</p> <p>12 ways, you know. Another visual cue is an</p> <p>13 engineer is, you know, painting lines so that the</p> <p>14 operator knows generally which direction to go</p> <p>15 and where to stop loading ore talc; correct?</p> <p>16 A Correct. And -- and color is -- is</p> <p>17 used pretty much everywhere for talc. If you --</p> <p>18 I mean, obviously, you -- you need high</p> <p>19 whiteness, high brightness. And talc, once you</p> <p>20 begin to get chlorite in it or accessory</p> <p>21 dolomite, you can begin to make your talc gray,</p> <p>22 and -- and suddenly you're -- you've got a</p> <p>23 product that, no matter what you do to it in the</p> <p>24 mill, you're not gonna get your color right.</p>	<p style="text-align: right;">Page 184</p> <p>1 you write, "In short, it is almost impossible to</p> <p>2 operate a mine in commodities that occur in</p> <p>3 relatively small, irregular deposits such as</p> <p>4 high-quality talc without periodically</p> <p>5 incorporating host rock, low-grade ore, and/or</p> <p>6 otherwise undesirable ore into the material being</p> <p>7 removed from the mine and processed."</p> <p>8 Okay. So my question there is: On</p> <p>9 what basis are we defining the possibility? Are</p> <p>10 you talking about on an hourly basis, a shift, a</p> <p>11 day, a month, over the life of the mine?</p> <p>12 A Well, you know, I'm tempted to say "All</p> <p>13 of the above," but that's not really -- that was</p> <p>14 not really the way I was saying that.</p> <p>15 That's a statement that says that when</p> <p>16 you've got an irregular ore body of variable</p> <p>17 composition, it's not possible to mine one grade</p> <p>18 of rock exclusively, day in and day out, without</p> <p>19 having bits and pieces of adjacent wall rock.</p> <p>20 I mean, in the underground mine, every</p> <p>21 time they shoot, you've got to go in with a steel</p> <p>22 bar and tap the roof and listen for loose rocks</p> <p>23 or you're -- you're fixing to die.</p> <p>24 And if you're mining over near the edge</p>
<p style="text-align: right;">Page 183</p> <p>1 Q Uh-huh.</p> <p>2 A And, so, it may be simply a matter of</p> <p>3 color. And if that's all it is, then a loader</p> <p>4 operator may -- may very well be able to handle</p> <p>5 it.</p> <p>6 Q Okay.</p> <p>7 A But if it's something else</p> <p>8 mineralogically, he may be completely clueless</p> <p>9 and need someone, likely a geologist or the mine</p> <p>10 superintendent, to tell him what to do.</p> <p>11 Q Okay. You'd agree with me it's,</p> <p>12 you know, it's more than just the guy who's doing</p> <p>13 the -- the loader. There's a whole process in</p> <p>14 place, typically, at mines to figure out how to</p> <p>15 follow the ore body and what to mine and what to</p> <p>16 waste; correct?</p> <p>17 A There's -- there's --</p> <p>18 MS. O'DELL:</p> <p>19 Object to the form.</p> <p>20 A Yes.</p> <p>21 MR. FROST:</p> <p>22 Q Okay.</p> <p>23 A There is supposed to be.</p> <p>24 Q At the bottom of that page, on page 6,</p>	<p style="text-align: right;">Page 185</p> <p>1 of the ore body, that loose rock on the ceiling</p> <p>2 could be black wall. And -- and you've got to</p> <p>3 scale it down. That rock is coming down into</p> <p>4 your ore. And the miner doesn't -- he's not</p> <p>5 gonna get it out.</p> <p>6 And, so, the point is that -- that</p> <p>7 in -- the reality of mining is such that you --</p> <p>8 you don't go out with tweezers and pick the best</p> <p>9 stuff out. You know, mining is a -- is a -- a</p> <p>10 process where you -- you come out of a hole with</p> <p>11 hundreds of tons of rock a day. And -- and to</p> <p>12 think that -- that every pound that makes up that</p> <p>13 hundreds of tons is gonna be the purest, best,</p> <p>14 high-grade talc or whatever ore that there is</p> <p>15 is -- it just doesn't work like that.</p> <p>16 Q Okay. And, in fact --</p> <p>17 Sorry.</p> <p>18 A Well, and I was -- I was gonna add that</p> <p>19 most mines have very specific quality control</p> <p>20 programs that -- that try to make sure that they</p> <p>21 are getting the best they can get. But I don't</p> <p>22 know of -- of any mine I've ever been associated</p> <p>23 with that didn't have occasional issues with --</p> <p>24 with wall rock or -- or a big included xenolith</p>

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<p style="text-align: right;">Page 186</p> <p>1 that they were unaware of getting blasted in with 2 their product. 3 And in an open pit it's even worse 4 because, you know, you can try as much as you can 5 to -- to stay in ore, but if you've got an 6 irregular surface that marks the boundary between 7 talc and schists, let's say, your -- your drill 8 cuttings may not tell you that unless you really 9 have somebody looking at drill cuttings for your 10 blast holes every single day. 11 Now, in the quarries that I work on, we 12 blast about sometimes once a week, sometimes once 13 every two weeks. We blast 40- or 50,000 tons at 14 a shot, which would be much larger than at the 15 talc mine. 16 But -- but when we blast, we always 17 find material that we weren't anticipating, and 18 we've got to get rid of it. 19 Q Sure. And -- 20 MS. O'DELL: 21 Jack, do you mind if we go off the 22 record just for a second? 23 MR. FROST: 24 Sure.</p>	<p style="text-align: right;">Page 188</p> <p>1 MS. O'DELL: 2 Object to the form. 3 A It depends on how your mill is set up. 4 There are mills that might not -- might not 5 handle the chlorite-rich cinders. Because when 6 you -- when you crush and grind chlorite, it will 7 tend to report with talc in a -- in a flotation 8 plant. 9 Q But, again, my question was more 10 general than that. 11 A Okay. 12 Q It's when done properly, the point of 13 sorting and beneficiation is to remove these 14 excess rocks and things that end up in the ores; 15 correct? 16 MS. O'DELL: 17 Object to the form. 18 MR. FROST: 19 Q That's -- that's why you do sorting and 20 beneficiation? 21 MS. O'DELL: 22 Object to the form. 23 A The sorting, yes. And beneficiation in 24 general, you're -- you're correct. I wouldn't</p>
<p style="text-align: right;">Page 187</p> <p>1 MS. O'DELL: 2 And if you need to ask a couple -- I 3 don't mean to -- 4 MR. FROST: 5 Yeah, I was going to say, do you mind 6 if I ask two questions? 7 MS. O'DELL: 8 Sure. 9 MR. FROST: 10 Then we can go off. 11 Q And, you know, in mining, that's sort 12 of expected, and that's why you have, on the back 13 end, you have sorting, beneficiation processes, 14 things like that; correct? 15 MS. O'DELL: 16 Object to the form. 17 A Correct. 18 MR. FROST: 19 Q And you'd also agree with me that, 20 you know, the point of sorting, beneficiation, 21 et cetera, when done properly, is to remove that 22 wall rock, host rock, things like that, you know, 23 that we talked about that may end up in the ores; 24 correct?</p>	<p style="text-align: right;">Page 189</p> <p>1 have worded it that way, but, yes. I mean, the 2 object of beneficiation is to make what goes in 3 better when it comes out. 4 MR. FROST: 5 Q Okay. 6 A So, from that standpoint, sure. 7 Q We can take a break. 8 VIDEOGRAPHER: 9 Going off the record. The time is 10 11:52 a.m. 11 (OFF THE RECORD.) 12 VIDEOGRAPHER: 13 We're back on the record. The time is 14 12:11 p.m. 15 MR. FROST: 16 Q Doctor, could you turn to page 7 of 17 your report? 18 A Okay. 19 Q And it's the paragraph that starts 20 "Imerys encountered difficulties." 21 A Right. 22 Q Look at the last sentence of that. It 23 says, "The need for careful, selective mining 24 relative to the controlled potential</p>

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<p style="text-align: right;">Page 190</p> <p>1 fiber-bearing zones in Vermont was emphasized in 2 a Cyprus interoffice correspondence." 3 I read that right? 4 A Yes. 5 Q And, if you look down, I take it that's 6 the -- that's the quote from the correspondence 7 we're talking about, the Imerys 219720 below 8 that? 9 A Right. 10 Q Tremolite and use deposits as 11 encountered? 12 The second sentence reads, "Cyprus 13 maintains a selective mining program in Vermont 14 that is directed towards exclusion of all these 15 potentially fiber-bearing zones when the ore is 16 sent to the mills, and those suspect tonnages, 17 including the associated talc, are left in the 18 pit walls or sent to waste piles." 19 Right? 20 A I see that. 21 Q So you agree with me that this 22 indicates that Imerys knew that they had to be 23 selective of the mining in the -- 24 MR. FROST:</p>	<p style="text-align: right;">Page 192</p> <p>1 there was a difference between the ore they 2 wanted to send to the mill and the -- the fibrous 3 waste ore; right? 4 MS. O'DELL: 5 Object to the form. 6 A That is correct, obviously. 7 MR. FROST: 8 Q Okay. And that it shows that they had, 9 in fact, you know, put in a selective mining 10 program to make sure that they weren't capturing 11 these fiber zones within the ore sent to the 12 mills; right? 13 MS. O'DELL: 14 Object to the form. 15 A The -- the implementation of the 16 selective mining is -- is -- I think that that 17 was part and parcel of -- of several agreements 18 that actually stated that in order to -- to -- to 19 make these operations worthwhile and profitable, 20 they had to have selective mining. And, so, from 21 that -- from that standpoint, they have to -- 22 they have to do it. They have to -- they had 23 agreed to do it. 24 MR. FROST:</p>
<p style="text-align: right;">Page 191</p> <p>1 Yeah. 2 MS. O'DELL: 3 I'm just putting in front of him the 4 documents. 5 MR. FROST: 6 The documents? That's fine. 7 Q You agree with me with that statement? 8 You know, that shows that Imerys knew that they 9 had to -- they couldn't use all of the ore body; 10 correct? 11 MS. O'DELL: 12 Object to the form. 13 A That's correct. 14 MR. FROST: 15 Q And it also, you know, indicates that 16 they could tell the difference between what was, 17 you know, effectively the ore and the fibrous 18 waste; right? 19 MS. O'DELL: 20 Object to the form. 21 A Would you ask it again? 22 MR. FROST: 23 Q Sure. 24 And it also indicates that they knew</p>	<p style="text-align: right;">Page 193</p> <p>1 Q Okay. And, in fact -- 2 Sorry. 3 A And, so, you know, the point that I 4 would make is that -- that we asked for all the 5 documents that would demonstrate this, and we did 6 not receive them. 7 Q Well -- 8 A And -- and, so, if we -- if we don't 9 have a way to verify the fact that they 10 implemented a selective mining, then -- then 11 we're left with -- with, you know, with a lot of 12 data that -- that suggests that -- that maybe 13 they didn't. Maybe they just saw white rock and 14 went for it. 15 Q Okay. And, again, you're speculating 16 on whether or not they implemented this or not 17 because you haven't seen all of the data; right? 18 MS. O'DELL: 19 Object to the form. 20 A We asked for the data. 21 MR. FROST: 22 Q Okay. And I want to unpack that a bit. 23 By we -- by "We asked for the data," 24 you mean you asked plaintiffs' counsel to give</p>

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<p style="text-align: right;">Page 194</p> <p>1 you all the documents?</p> <p>2 A I asked them to ask for them.</p> <p>3 Q Okay. And you have no way to verify</p> <p>4 whether what -- the selective set of documents</p> <p>5 they gave you contains all of the data that might</p> <p>6 relate to selective mining; correct?</p> <p>7 MS. O'DELL:</p> <p>8 Object to the form.</p> <p>9 A I have no way to know. But -- but it</p> <p>10 wouldn't make sense for them not to -- to give me</p> <p>11 everything they've got that I asked for.</p> <p>12 MR. FROST:</p> <p>13 Q Well, except for the fact that they're</p> <p>14 pursuing theories in these cases, so maybe they</p> <p>15 selected the documents that specifically support</p> <p>16 their theories; correct? That's a possibility.</p> <p>17 A Well, I'm not sure that what they sent</p> <p>18 me supports their theories.</p> <p>19 Q Okay. But, again, without speculating,</p> <p>20 you can't tell me one way or the other what the</p> <p>21 full intent was of the selective mining program</p> <p>22 at Imerys; right? You just don't know if there</p> <p>23 was more, if there's less. You know, you can't</p> <p>24 tell because you don't know if you have all the</p>	<p style="text-align: right;">Page 196</p> <p>1 being done and how potentially effective it was</p> <p>2 at all stages of the mine life; correct?</p> <p>3 MS. O'DELL:</p> <p>4 Object to the form.</p> <p>5 A The data I have supports the opinion</p> <p>6 that I have that -- that there may not have been</p> <p>7 sufficient selective mining to eliminate all of</p> <p>8 the -- the waste that should have been</p> <p>9 eliminated.</p> <p>10 MR. FROST:</p> <p>11 Q Okay. And you'd agree that that</p> <p>12 opinion is solely based on the data you had</p> <p>13 available to you?</p> <p>14 A That's correct.</p> <p>15 Q And, again, I think we've established</p> <p>16 you'd be open to reviewing other data, and if</p> <p>17 it --</p> <p>18 A Absolutely.</p> <p>19 Q -- supported a different opinion, you'd</p> <p>20 be willing to change your opinion based on that</p> <p>21 data?</p> <p>22 MS. O'DELL:</p> <p>23 Object to the form.</p> <p>24 A I'm -- I'm willing to look at -- at any</p>
<p style="text-align: right;">Page 195</p> <p>1 documents. Is that fair?</p> <p>2 MS. O'DELL:</p> <p>3 Object to the form.</p> <p>4 A I don't -- I would think that I don't</p> <p>5 have all the documents. But in -- in a mining</p> <p>6 scenario, it's -- it's common for documents to</p> <p>7 get destroyed once you're past where you are</p> <p>8 mining.</p> <p>9 And, so, it's possible that -- that</p> <p>10 there were documents that don't exist anymore.</p> <p>11 MR. FROST:</p> <p>12 Q Okay.</p> <p>13 A But selective mining is gonna be tough</p> <p>14 in some of these, especially underground. I</p> <p>15 mean, it's pretty clear that it -- that it --</p> <p>16 that they needed to get -- get out of underground</p> <p>17 as quickly as they could at Hammondsville and at</p> <p>18 Johnson.</p> <p>19 Q Okay.</p> <p>20 A That -- that's a difficult thing to do</p> <p>21 selectively.</p> <p>22 Q You'd agree with me, one way or the</p> <p>23 other, you don't have sufficient evidence to make</p> <p>24 concrete opinions about what selective mining was</p>	<p style="text-align: right;">Page 197</p> <p>1 additional data that comes along.</p> <p>2 MR. FROST:</p> <p>3 Q Turn to page 8 of your report, please,</p> <p>4 last paragraph on the page.</p> <p>5 A Okay.</p> <p>6 Q About halfway down, it's a sentence</p> <p>7 that starts, "It is known that Rio Tinto" --</p> <p>8 A Okay.</p> <p>9 Q -- "identified problems with long</p> <p>10 Guangxi talc ores in 1997 which resulted in the</p> <p>11 recommendation that a Luzenac representative be</p> <p>12 present at the mine during the mining and sorting</p> <p>13 process."</p> <p>14 A Correct.</p> <p>15 Q Correct?</p> <p>16 And then you cite Imerys-A15758?</p> <p>17 A Right. Correct.</p> <p>18 MS. O'DELL:</p> <p>19 Are you gonna mark that, Jack?</p> <p>20 I'll take this one.</p> <p>21 What's the number?</p> <p>22 MR. FROST:</p> <p>23 Fourteen?</p> <p>24 THE COURT REPORTER:</p>

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<p>1 Yes.</p> <p>2 MS. O'DELL:</p> <p>3 Thank you.</p> <p>4 (DEPOSITION EXHIBIT NUMBER 14</p> <p>5 WAS MARKED FOR IDENTIFICATION.)</p> <p>6 MR. FROST:</p> <p>7 Q And I'll turn your attention</p> <p>8 specifically under -- under "Introduction."</p> <p>9 A Okay.</p> <p>10 Q Do you agree with me it talks about</p> <p>11 quality control issues with Cimpact 10?</p> <p>12 A Okay.</p> <p>13 Q And you can review the rest of it, but</p> <p>14 will you also agree with me that the Cimpact 10</p> <p>15 ore is different than the Guangxi number 1 and</p> <p>16 the Guangxi number 2 ores?</p> <p>17 A I think it is.</p> <p>18 Q So you agree that the problems</p> <p>19 identified that this document are specifically</p> <p>20 addressing are the Cimpact 10 quality control</p> <p>21 issues; correct?</p> <p>22 A Hang on a sec.</p> <p>23 MS. O'DELL:</p> <p>24 If you need a minute to review the</p>	<p>1 address it, they're talking about the Cimpact 10</p> <p>2 problems that --</p> <p>3 A Yeah.</p> <p>4 Q -- they had at Grand Island.</p> <p>5 MS. O'DELL:</p> <p>6 Excuse me. Object to the form.</p> <p>7 A Yeah.</p> <p>8 But if they weren't having quality</p> <p>9 control problems at both places, why would they</p> <p>10 mention both places? Doesn't make sense.</p> <p>11 MR. FROST:</p> <p>12 Q What do you mean by "both places"?</p> <p>13 A In the summary. They're talking about</p> <p>14 the Cim- --</p> <p>15 Well, they're talking about Guangxi 1,</p> <p>16 and, so, you've got two separate things you're</p> <p>17 talking about, but they're talking about issues</p> <p>18 with both of them.</p> <p>19 Q Where in this document does it point</p> <p>20 out that they have problems with the testing of</p> <p>21 the Guangxi 1 ore?</p> <p>22 A In the -- in the summary of this</p> <p>23 document.</p> <p>24 Q And you're talking about where it talks</p>
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<p>1 document, Doctor, feel free to do that.</p> <p>2 A In the introduction, they are fairly</p> <p>3 clear that they're worried about Guangxi, not</p> <p>4 Cimpact.</p> <p>5 MR. FROST:</p> <p>6 Q But they're talking about the quality</p> <p>7 control problems with Cimpact; correct?</p> <p>8 A Well, it --</p> <p>9 MS. O'DELL:</p> <p>10 Object to the form.</p> <p>11 A Well, it's not just them. It's -- and</p> <p>12 I'm reading up in the summary. It's indicated</p> <p>13 the need for better technical and probably</p> <p>14 mineralogical specifications for the Guangxi</p> <p>15 number 1 crude. So they're including at least</p> <p>16 some Guangxi in this.</p> <p>17 MR. FROST:</p> <p>18 Q Well, they're talking about they want</p> <p>19 to implement a program for both Cimpact and</p> <p>20 Guangxi; correct?</p> <p>21 A Right.</p> <p>22 Q And then when they specifically talk</p> <p>23 about the quality control problems, you'll agree</p> <p>24 with me, down in the introduction, as they</p>	<p>1 about, at the very beginning --</p> <p>2 A Right.</p> <p>3 Q -- where they say "New specifications</p> <p>4 should go into," and they're talking about the</p> <p>5 Guangxi number 1 crew?</p> <p>6 A Why would they need any specifications</p> <p>7 if they weren't having problems?</p> <p>8 Q But, again --</p> <p>9 A That's the way I read it.</p> <p>10 Q I was going to say, but -- that's how</p> <p>11 you're reading it, but you agree with me the</p> <p>12 document itself only talks about problems that</p> <p>13 have come up with the Cimpact 10 crew --</p> <p>14 A Yeah, after the --</p> <p>15 MS. O'DELL:</p> <p>16 Excuse me. Just let him finish and</p> <p>17 then give me a minute. Okay?</p> <p>18 Are you finished with your question?</p> <p>19 MR. FROST:</p> <p>20 Yes.</p> <p>21 MS. O'DELL:</p> <p>22 Object to the form. Misstates the</p> <p>23 document.</p> <p>24 MR. FROST:</p>

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<p style="text-align: right;">Page 202</p> <p>1 Q You'd agree with me the only specific, 2 you know -- 3 When they actually talk about the 4 problems that have come up, they're only talking 5 about problems that have been identified in the 6 Cimpact 10 or Cimpact 710 ore; correct? 7 MS. O'DELL: 8 Object to the form. 9 A Well, I -- I don't agree with that at 10 all. If you go to the second page, about midway 11 down, they start again about Guangxi number 1 12 crude. 13 MR. FROST: 14 Q Okay. 15 A And, so, I mean, I'm not sure that -- 16 why we're making -- why we're saying it's only 17 Cimpact, because it's -- they're talking about 18 Guangxi crude here. 19 Q But where are they talking about 20 quality control problems they've identified with 21 Guangxi 1 crude? 22 A I -- I think that's what they're 23 addressing. You know, they're trying to 24 respecify what they need.</p>	<p style="text-align: right;">Page 204</p> <p>1 Object to the form. 2 MR. FROST: 3 Q Okay. And, again, if we look at 4 Grand Island, it talks about June 24 samples of 5 Cimpact 10 lot. 6 That's on the bottom of page 2. 7 MS. O'DELL: 8 Where are you reading? 9 MR. FROST: 10 Q Right? I've read the document 11 correctly? 12 MS. O'DELL: 13 Okay. Were you on page 2, not page 1? 14 MR. FROST: 15 Yes. 16 MS. O'DELL: 17 And, Dr. Cook, were you -- I mean, 18 don't respond that he's read it correctly -- 19 MR. FROST: 20 Yeah. 21 MS. O'DELL: 22 No, I don't mean this pejoratively. 23 MR. FROST: 24 No. I think the witness and I were on</p>
<p style="text-align: right;">Page 203</p> <p>1 Q But you're speculating, based on new 2 specifications, that they have found some 3 undocumented problem with the Guangxi number 1 4 crude despite the fact that they only list issues 5 with the Cimpact 710? 6 A I'm not sure -- 7 MS. O'DELL: 8 Object to the form. 9 A I'm not sure that's right. It looks to 10 me like this document is addressing Guangxi 11 number 1 and the other. 12 MR. FROST: 13 Q As far as the specifications; right? 14 A Well, with the thought in mind that 15 these need to be changed for some reason. 16 Q Okay. And, again, it seems -- it's not 17 "seems." It says -- the document itself says the 18 bases for the wanting to change are, quote, 19 "after several episodes of quality control 20 problems with the Cimpact 10 and product at the 21 Grand Island during the first quarter of 1997." 22 Correct? 23 A Right. 24 MS. O'DELL:</p>	<p style="text-align: right;">Page 205</p> <p>1 the same page. 2 MS. O'DELL: 3 I don't think you were, because he 4 wasn't looking at that. 5 So the -- I don't mean this in a 6 pejorative sense -- 7 MR. FROST: 8 No. 9 MS. O'DELL: 10 -- but -- 11 Let me finish. 12 So if you -- there's a specific 13 question that you asked about page 2, I wanted to 14 make sure that the doctor understood where you 15 were in the document. 16 MR. FROST: 17 Sure. 18 A You know, if you go beyond what you 19 just read, I mean, there's more to this document 20 than just that. 21 If you go to the next page, there they 22 are looking at Guangxi number 1 again -- 23 MR. FROST: 24 Q Uh-huh. And it shows --</p>

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<p style="text-align: right;">Page 206</p> <p>1 A -- as if there's some issue there.</p> <p>2 Q Well, that's just showing the testing</p> <p>3 results, as it said. But the only place it ever</p> <p>4 shows quality control problems is on page 1,</p> <p>5 under the introduction; correct?</p> <p>6 MS. O'DELL:</p> <p>7 Object to the form.</p> <p>8 A Hang on a second.</p> <p>9 You have to really wonder, because the</p> <p>10 table that they've got here on page 3 shows</p> <p>11 silica out of spec for Guangxi 1.</p> <p>12 So it seems to me that they -- that</p> <p>13 they realized that they may have an issue and</p> <p>14 that this document is simply pointing it out,</p> <p>15 says, "Let's tighten things up."</p> <p>16 MR. FROST:</p> <p>17 Q Again, that's your interpretation of</p> <p>18 this document. It's clearly not what the</p> <p>19 document says; correct?</p> <p>20 MS. O'DELL:</p> <p>21 Object to the form. Misstates the --</p> <p>22 A I'm not -- I'm not sure it doesn't say</p> <p>23 that. I mean, you read this part here correctly,</p> <p>24 but there's more to the document beyond what you</p>	<p style="text-align: right;">Page 208</p> <p>1 Object to -- object to the form.</p> <p>2 A That's not what it says. It says it in</p> <p>3 one sentence, but that one sentence is part of a</p> <p>4 larger document that, past that one sentence, has</p> <p>5 some analytical data for Guangxi 1, and it shows</p> <p>6 something to be out of spec.</p> <p>7 And it -- it's a very simple thing.</p> <p>8 All they're saying is, "We need to tighten up our</p> <p>9 processes of quality control." They don't say</p> <p>10 this is asbestos. They don't say it's heavy</p> <p>11 metals. And what it really amounts to is a</p> <p>12 little bit of chlorite in the talc.</p> <p>13 Q Okay. And you agree with me it's not</p> <p>14 saying quality control. They're talking about</p> <p>15 changing the specifications.</p> <p>16 MS. O'DELL:</p> <p>17 Object to the form.</p> <p>18 A If you don't want that to be quality</p> <p>19 control, okay.</p> <p>20 MR. FROST:</p> <p>21 Q Well, sure. I mean --</p> <p>22 A If that's what you say isn't quality</p> <p>23 control, I'm gonna -- I'll --</p> <p>24 MS. O'DELL:</p>
<p style="text-align: right;">Page 207</p> <p>1 read.</p> <p>2 MR. FROST:</p> <p>3 Q Okay. It shows the testing results.</p> <p>4 Again --</p> <p>5 A Right. And it shows something else --</p> <p>6 Q Let's walk through it. You ready?</p> <p>7 A -- out of spec, I think.</p> <p>8 Q How do you know? Do you --</p> <p>9 A Because they have the range that the</p> <p>10 analyses have to fall within.</p> <p>11 Q Okay. But does it say there are</p> <p>12 quality control issues with respect to --</p> <p>13 A Well, I mean, what else is going on,</p> <p>14 other than quality control?</p> <p>15 Q But, again, that's your interpretation</p> <p>16 of this document. The actual document itself --</p> <p>17 A It's my opinion that this -- that this</p> <p>18 has to do with quality control.</p> <p>19 Q Okay.</p> <p>20 A And they have included both types here.</p> <p>21 Q But, again, the document itself only</p> <p>22 talks about quality control problems with the</p> <p>23 Cimpack 10 product at Grand Island; correct?</p> <p>24 MS. O'DELL:</p>	<p style="text-align: right;">Page 209</p> <p>1 No, don't --</p> <p>2 THE WITNESS:</p> <p>3 Okay. I don't agree with it.</p> <p>4 MS. O'DELL:</p> <p>5 Yeah. I mean, don't agree because --</p> <p>6 with -- with the definitions of counsel if you</p> <p>7 don't agree with them.</p> <p>8 THE WITNESS:</p> <p>9 Sure.</p> <p>10 I don't agree.</p> <p>11 MR. FROST:</p> <p>12 Q All right. That's fine.</p> <p>13 Move on to page 9.</p> <p>14 A Okay.</p> <p>15 Q Third paragraph down, "A review of</p> <p>16 milling and beneficiation practices employed at</p> <p>17 Imerys's Houston plant indicate that the</p> <p>18 flotation method utilized for decades in Vermont</p> <p>19 was not used but, rather, a series of grinding</p> <p>20 and air classification processes."</p> <p>21 A Yeah.</p> <p>22 Q Okay. You agree with me that flotation</p> <p>23 isn't the only type of beneficiation that can be</p> <p>24 used on an ore; correct?</p>

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<p style="text-align: right;">Page 210</p> <p>1 A I agree.</p> <p>2 Q Okay. In fact, there are bunches of</p> <p>3 different types of beneficiation?</p> <p>4 A Correct.</p> <p>5 Q And the documents you cite here</p> <p>6 specifically talk about how Imerys determined</p> <p>7 that flotation beneficiation was necessary for</p> <p>8 the Vermont ores; correct?</p> <p>9 A Yeah. You use the flotation process if</p> <p>10 you -- if you've got a talc carbonate ore.</p> <p>11 You've got to get rid of the carbonate.</p> <p>12 Q Okay.</p> <p>13 A And, so, that's why you float.</p> <p>14 Q So you agree with me the fact that they</p> <p>15 weren't using flotation on the Chinese ore</p> <p>16 doesn't show that there was necessarily a</p> <p>17 breakdown of the process. They were just using a</p> <p>18 different form of beneficiation?</p> <p>19 A Right. Right. There's no carbonate in</p> <p>20 the -- to speak of in the -- in the Chinese ores.</p> <p>21 Q Okay. The next paragraph down, you</p> <p>22 talk about quality control. Do you see where I</p> <p>23 am? "Quality control issues are discussed" --</p> <p>24 A Okay.</p>	<p style="text-align: right;">Page 212</p> <p>1 A Yeah. It has to do with the type of</p> <p>2 mill. I mean, the mill was set up originally for</p> <p>3 baryte, and -- and it uses a -- an interesting</p> <p>4 air separation technique. And -- and I think</p> <p>5 it's probably very effective for talc.</p> <p>6 But there's -- there's nothing in that</p> <p>7 type of a process that would address heavy metals</p> <p>8 at all, unless the heavy metals were restricted</p> <p>9 to some extremely dense accessory mineral. And I</p> <p>10 don't think we've got evidence for that in the</p> <p>11 Chinese talc.</p> <p>12 Q Okay. And what are you relying on to</p> <p>13 say --</p> <p>14 Well, I guess strike that.</p> <p>15 So is this limited, when we're talking</p> <p>16 here, we're limiting it to the heavy metals?</p> <p>17 MS. O'DELL:</p> <p>18 Object to the form.</p> <p>19 A No. I mean, the same is true if there</p> <p>20 was asbestos in any of the crude that came in.</p> <p>21 Probably it would pass on through with the talc.</p> <p>22 There's nothing set up there in Houston that</p> <p>23 would specifically cut the -- any asbestiform</p> <p>24 mineral out.</p>
<p style="text-align: right;">Page 211</p> <p>1 Q -- below in the report?</p> <p>2 A Sure, uh-huh.</p> <p>3 Q Sort of halfway through that sentence</p> <p>4 you said, you know -- it says, "makes it clear</p> <p>5 non-talc material such as asbestos and high</p> <p>6 concentrations of some heavy metals are included</p> <p>7 in the finished products."</p> <p>8 A Sure.</p> <p>9 Q Are you talking about the ore or are</p> <p>10 you talking about finished talcum product, like</p> <p>11 finished talcum powder, in the sentence?</p> <p>12 A No. I'm talking about the finished</p> <p>13 product.</p> <p>14 Q All right.</p> <p>15 A There's nothing in the Houston mill</p> <p>16 that's gonna get out heavy metals. And if there</p> <p>17 happened to be some asbestos, I don't think that</p> <p>18 that plant -- I mean, it's not set up to handle</p> <p>19 that. So...</p> <p>20 Q And the basis of your opinion on that</p> <p>21 is --</p> <p>22 Have you looked at any sampling data?</p> <p>23 Have you looked at any research or literature</p> <p>24 regarding that?</p>	<p style="text-align: right;">Page 213</p> <p>1 MR. FROST:</p> <p>2 Q So you used the word "probably." Do</p> <p>3 you have any scientific study or research to show</p> <p>4 that the various air beneficiation processes used</p> <p>5 at the Houston mill would be completely incapable</p> <p>6 of removing asbestos from the ore?</p> <p>7 A Well, I didn't --</p> <p>8 MS. O'DELL:</p> <p>9 Object to the form.</p> <p>10 A Right. I didn't say it was completely</p> <p>11 incapable. What I -- what I said was that I</p> <p>12 don't think there's anything in the -- in the</p> <p>13 system there now that would cut a -- a</p> <p>14 asbestiform mineral out of the -- out of the</p> <p>15 airflow, you know, once the grinding process has</p> <p>16 been done.</p> <p>17 And, you know, I'm sure there's lots</p> <p>18 of, you know, papers on physical metallurgy</p> <p>19 that'll back that up.</p> <p>20 MR. FROST:</p> <p>21 Q Can you cite me any right now that</p> <p>22 would back up the fact that --</p> <p>23 A I -- I had some --</p> <p>24 Q -- this design --</p>

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<p style="text-align: right;">Page 214</p> <p>1 A -- when I came in here, and I can't 2 remember them. 3 Q Okay. 4 A No, I can't remember them. 5 Q So, sitting here today, you can't tell 6 me that? 7 A No. 8 Q Okay. Can you agree with me you've 9 never actually yourself tested any -- 10 A No. 11 Q -- Johnson &amp; Johnson talcum powder? 12 MS. O'DELL: 13 Let him finish with the question, sir. 14 THE WITNESS: 15 I'm sorry. 16 A No, I have not. 17 MR. FROST: 18 Q And your role here isn't to testify 19 that any particular level of heavy metals made it 20 into any finished product, like any -- 21 I'll strike -- I'll -- I'll rephrase 22 that question. 23 You're not here to offer an opinion 24 that any particular bottle of Johnson's --</p>	<p style="text-align: right;">Page 216</p> <p>1 MS. O'DELL: 2 Object to the form. 3 A Every spec sheet I've been given is out 4 of -- is out of compliance. 5 MR. FROST: 6 Q See, that's a very different answer, 7 now, isn't it, between every single sample is out 8 of compliance versus every single sample that was 9 given to you by plaintiffs' counsel? Do you 10 agree? 11 MS. O'DELL: 12 Object to the form. 13 A I'm not sure that they aren't the same 14 thing. 15 MR. FROST: 16 Q You have no way to verify, so you 17 believe you've been shown every single sample of 18 Vermont 66 that exists? 19 A I think that -- 20 MS. O'DELL: 21 Excuse me. Object to the form. 22 Just note that's a very different 23 question. 24 MR. FROST:</p>
<p style="text-align: right;">Page 215</p> <p>1 Johnson &amp; Johnson talcum powder had any 2 particular level of heavy metals or asbestos in 3 it; right? 4 MS. O'DELL: 5 Object to the form. 6 A I am. 7 MR. FROST: 8 Q You're here to talk about individual 9 bottles that were used by consumers? 10 A I'm not gonna say an individual bottle, 11 but I will say this. If you take every analysis 12 you've got of 66, every single one is out of spec 13 for heavy metals. 14 And, so, if that's the case, then -- 15 then go pick a bottle off the shelf today and -- 16 oh, well, not today, but go back in time 20 17 years, pick one off the shelf and analyze it, and 18 it's gonna have excessive amounts of nickel, for 19 sure, probably chromium and probably cobalt. 20 Q So it's your test [sic] that every 21 single test of every single sample of Vermont 66 22 that's ever been done was out of spec for heavy 23 metals? 24 A Every --</p>	<p style="text-align: right;">Page 217</p> <p>1 Okay. You can object to the form. 2 MS. O'DELL: 3 I will object to the form, because 4 that's a different -- 5 A We asked for the results. 6 MR. FROST: 7 Q Okay. 8 A And we requested a set of data. And 9 the set of data we were given shows consistent 10 high levels of those three metals. 11 Q Would you be surprised if I told you 12 that there were hundreds and even thousands of 13 additional sample sets that weren't included in 14 the materials that were given to you by 15 plaintiffs' counsel? 16 MS. O'DELL: 17 Object to the form. 18 A Well, I think that I would like to 19 believe that and I think it would be great to see 20 them. 21 MR. FROST: 22 Q Okay. But you certainly don't have 23 them and you haven't been given them. 24 MS. O'DELL:</p>

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<p style="text-align: right;">Page 218</p> <p>1 Object to the form.</p> <p>2 A If there's thousands of --</p> <p>3 MS. O'DELL:</p> <p>4 Excuse me. Excuse me.</p> <p>5 Object to the form. Misstates the</p> <p>6 record.</p> <p>7 A If there are thousands of additional</p> <p>8 ones, then that implies I haven't seen them,</p> <p>9 which is true.</p> <p>10 MR. FROST:</p> <p>11 Q Okay. And would that change your</p> <p>12 opinion? Because this -- this appears to be</p> <p>13 based on the fact that you're saying every single</p> <p>14 test you've seen is out of spec. Would it change</p> <p>15 your opinion if you were to see a significant</p> <p>16 collection of documents that showed a very</p> <p>17 different result?</p> <p>18 MS. O'DELL:</p> <p>19 Object to the form.</p> <p>20 A The -- the data that we've got for the</p> <p>21 annual composite samples, I think we've got</p> <p>22 annual composites for 19 years. And every one of</p> <p>23 them's out of spec.</p> <p>24 So if you -- if -- and, so, if you come</p>	<p style="text-align: right;">Page 220</p> <p>1 for example, and you're basing this off of 19</p> <p>2 test results despite the fact the product has</p> <p>3 been on the market for over a hundred years?</p> <p>4 MS. O'DELL:</p> <p>5 Object to the form. Misstates his</p> <p>6 testimony.</p> <p>7 A Yeah. That -- that -- I don't see how</p> <p>8 that question is relative to -- to anything</p> <p>9 because of the going-back-hundred-year idea. I</p> <p>10 mean, probably it's true if you could go back a</p> <p>11 hundred years. But I know that the data that</p> <p>12 we've got -- I mean, it's more than just the</p> <p>13 19-year collection of annual composites.</p> <p>14 I mean, that's just a subset of a much</p> <p>15 larger data set we've got. I can't tell you how</p> <p>16 many analyses we've got, but it's many hundreds.</p> <p>17 And there isn't a single data set we've got</p> <p>18 that -- that puts nickel, cobalt, or chromium in</p> <p>19 spec. Not a single one.</p> <p>20 MR. FROST:</p> <p>21 Q Okay. And by "in spec," what are you</p> <p>22 referring to?</p> <p>23 A Ten parts per million.</p> <p>24 Q And where are you getting the spec</p>
<p style="text-align: right;">Page 219</p> <p>1 up with eight more years worth of annual</p> <p>2 composites, I'm gonna bet you that they're gonna</p> <p>3 be out of spec, too. Because these 19 we've got</p> <p>4 are -- are staggered in time.</p> <p>5 MR. FROST:</p> <p>6 Q Okay. But, again, you're looking at 19</p> <p>7 over, I think, a 115-year history of --</p> <p>8 A No. These are the annual --</p> <p>9 Well, no.</p> <p>10 Q -- of the product.</p> <p>11 A That is not correct. No.</p> <p>12 The -- we didn't start getting any</p> <p>13 analytical data for heavy metals before, say,</p> <p>14 1970. And I don't think anybody cared, really,</p> <p>15 prior to that.</p> <p>16 Q Okay. So, again, you're making</p> <p>17 generalizations --</p> <p>18 A No generalization.</p> <p>19 Q -- based on --</p> <p>20 A I'm telling you fact.</p> <p>21 Q Again, you have to go back to my</p> <p>22 original question that was you can sit here and</p> <p>23 tell me that every single bottle, any particular</p> <p>24 bottle is out of spec for heavy metals, you know,</p>	<p style="text-align: right;">Page 221</p> <p>1 from?</p> <p>2 A It's my value.</p> <p>3 Q I mean, what is the spec?</p> <p>4 A That's what was given in testimony --</p> <p>5 in depositions, and it's in lots of documents</p> <p>6 where the heavy metals are being reported as</p> <p>7 10 ppm lead max, and that was an old-time way of</p> <p>8 reporting a group of metals you reported as lead</p> <p>9 because there was a point in time when everybody</p> <p>10 was terrified of lead. They were so worried</p> <p>11 about lead because of their -- their children.</p> <p>12 You know, it impacts the mental ability of</p> <p>13 children.</p> <p>14 Q Okay. Can you -- you have no opinion</p> <p>15 as to what level of cobalt is required to cause</p> <p>16 human disease, do you?</p> <p>17 A I think cobalt is -- is a Group 2</p> <p>18 element --</p> <p>19 Q Listen to my question, though, sir.</p> <p>20 Do you have an opinion as to what level</p> <p>21 --</p> <p>22 MS. O'DELL:</p> <p>23 He was -- he was answering -- excuse</p> <p>24 me, Jack. He was answering your question.</p>

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<p style="text-align: right;">Page 222</p> <p>1 You may answer.</p> <p>2 A Yeah. I was gonna -- I was gonna say</p> <p>3 that if you're thinking of cancer, there may be</p> <p>4 one level, but if you go -- if you go and try to</p> <p>5 pull the acceptable levels from -- from various</p> <p>6 governmental agencies, you find some really</p> <p>7 strange things because it depends on the medium</p> <p>8 that you're working with.</p> <p>9 Like if you were running a landfill,</p> <p>10 then the --</p> <p>11 MR. FROST:</p> <p>12 Q I'll stop you here because I'm just</p> <p>13 very confused by this. You're not a</p> <p>14 toxicologist; right?</p> <p>15 A Right.</p> <p>16 Q And you're not here to offer any</p> <p>17 opinions as to whether or not --</p> <p>18 A I'm trying to answer your question.</p> <p>19 Q Well, no. That's why -- I was trying</p> <p>20 to get at that, and that's --</p> <p>21 You know, my question really is you're</p> <p>22 not here to offer any opinions that say a</p> <p>23 particular level of cobalt or a particular level</p> <p>24 of nickel found in a product can cause human</p>	<p style="text-align: right;">Page 224</p> <p>1 MS. O'DELL:</p> <p>2 He's --</p> <p>3 MR. FROST:</p> <p>4 We're on my time.</p> <p>5 MS. O'DELL:</p> <p>6 No. He's not --</p> <p>7 MR. FROST:</p> <p>8 No. My question is whether or not he</p> <p>9 believes he's an expert --</p> <p>10 MS. O'DELL:</p> <p>11 You cannot interrupt him.</p> <p>12 MR. FROST:</p> <p>13 Leigh, my question is whether or not --</p> <p>14 MS. O'DELL:</p> <p>15 He's trying to answer the question.</p> <p>16 MR. FROST:</p> <p>17 -- he believes he's an expert.</p> <p>18 It's a "yes" or "no" question.</p> <p>19 A I've answered that over and over. I</p> <p>20 said no.</p> <p>21 MR. FROST:</p> <p>22 Q That's what I'm saying.</p> <p>23 A Yes, I have. And I said "no."</p> <p>24 Q I know. And that's what I'm getting</p>
<p style="text-align: right;">Page 223</p> <p>1 disease; right?</p> <p>2 MS. O'DELL:</p> <p>3 Object to the form. And I would just</p> <p>4 ask if you'd let the witness finish before you</p> <p>5 interrupt him, please.</p> <p>6 If your answer --</p> <p>7 A Nickel and chromium and arsenic, I</p> <p>8 think that there's plenty of evidence that the</p> <p>9 limits are way lower than what --</p> <p>10 Well, maybe not arsenic. But -- but I</p> <p>11 think with respect to cancer, nickel and chromium</p> <p>12 are pretty well established.</p> <p>13 But -- but the point is that</p> <p>14 Johnson &amp; Johnson established its own limits.</p> <p>15 MR. FROST:</p> <p>16 Q Sir, can you please listen --</p> <p>17 MS. O'DELL:</p> <p>18 Let's --</p> <p>19 MR. FROST:</p> <p>20 No, no.</p> <p>21 MS. O'DELL:</p> <p>22 Excuse me.</p> <p>23 MR. FROST:</p> <p>24 He's not answering my question.</p>	<p style="text-align: right;">Page 225</p> <p>1 at. But now you seem to be offering opinions</p> <p>2 about levels of heavy metals that could be in</p> <p>3 talcum powder that can cause disease.</p> <p>4 Are you here to offer an opinion about</p> <p>5 that today?</p> <p>6 MS. O'DELL:</p> <p>7 Excuse me.</p> <p>8 He's trying to answer your question</p> <p>9 regarding the specification, so let him answer.</p> <p>10 THE WITNESS:</p> <p>11 Yeah.</p> <p>12 MR. FROST:</p> <p>13 But, again, that's the question as</p> <p>14 you're framing it. It's not the actual question</p> <p>15 I asked.</p> <p>16 MS. O'DELL:</p> <p>17 I think he --</p> <p>18 A Well, I'm gonna answer it. I don't</p> <p>19 care whether you like it or not.</p> <p>20 Johnson &amp; Johnson set its specs. The</p> <p>21 specs have to be there for a reason. And the</p> <p>22 specs are quite low, and the talcum powder</p> <p>23 product, it exceeds them. I mean, it's as simple</p> <p>24 as that. I'm not saying it's causing --</p>

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<p style="text-align: right;">Page 226</p> <p>1 I mean, it could be causing gum 2 disease. I don't know. But it's their specs I'm 3 referring to. 4 MR. FROST: 5 Q Okay. And that's my question. 6 A Their own specifications. 7 Q And you can't tell me if out of spec 8 has any -- you know, whether or not any 9 particular level, in spec or out of spec, has any 10 potential concern for causation of human disease; 11 correct? 12 A I am gonna leave that to the experts 13 who I'm sure will have lots to say about that. 14 Q And that's what I was trying to get at, 15 sir. 16 A Okay. 17 Q That's not your area of expertise. 18 A Well, I've answered that question over 19 and over again. I'm not an expert in toxicology. 20 Q Okay. Then next time, don't explain 21 something that you're not into. 22 A Well, you asked the question, and I 23 tried to give you the knowledge that I had. But 24 the basis for my statement is the fact that there</p>	<p style="text-align: right;">Page 228</p> <p>1 MS. O'DELL: 2 Object to the form. 3 A Absolutely. 4 MR. FROST: 5 Q Okay. All right. Turning to the 6 "Mineralogy" section of your report that starts 7 on page 9. 8 A Okay. 9 Q Can you point me to a specific 10 geological report that you rely on that talks 11 about the geological deposit of the Jhizhua talc 12 mine, in the Guangxi province of China? 13 A Yeah. There -- 14 MS. O'DELL: 15 On page 9? 16 MR. FROST: 17 It starts on the -- the section starts 18 on page 9. I'm talking about Section B, 19 "Mineralogy," in general. 20 MS. O'DELL: 21 Okay. And you're directing him to the 22 section on China beginning on page 12? 23 MR. FROST: 24 Yeah. I'm not directing him to any</p>
<p style="text-align: right;">Page 227</p> <p>1 are set specifications that were made by 2 Johnson &amp; Johnson, and the analyses exceed that. 3 I mean, it's just as simple as that. 4 Q Okay. 5 A I'm not trying to say anything more. 6 Q I was gonna say, and that's -- that's 7 what I'm trying to get at. That's all you're 8 saying -- 9 A Yeah. 10 Q -- is that you looked at a set of specs 11 and your opinion is that, based on the testing 12 results you've been given, they're outside of 13 those specs. 14 MS. O'DELL: 15 Object to the form. 16 A It's not an opinion. They are outside 17 of the specs. 18 MR. FROST: 19 Q Well, we call it an opinion -- 20 A It's just a fact. It's a fact. 21 Okay. An opinion. 22 Q But that's -- that's the opinion you're 23 rendering is that, based on the testing results 24 that you reviewed, they were out of spec?</p>	<p style="text-align: right;">Page 229</p> <p>1 specific. It was a general question, and that 2 was, you know, what geological studies do you 3 have that relate to -- 4 A I think the two that I've referenced 5 that are actually published reports. 6 MR. FROST: 7 Q Do you recall which ones those are? 8 A I don't remember the authors. But 9 they're modern reports. And, plus, just recently 10 we got a copy of the geologic map for the mine, 11 which was helpful. 12 Q And for Vermont, do you rely on any 13 very -- you know, any of the specific geological 14 reports that relate to Hammondsville, Hamm, 15 Argonaut, or Rainbow specifically? 16 MS. O'DELL: 17 Object to the form. Vague. 18 A The -- yeah. There are specific 19 reports like there's a U.S. Bureau of Mines 20 report that's -- that's good on the Johnson mine, 21 and there's the Barry Seymour thesis that's 22 pretty good on Johnson. There are two reports on 23 Hammondsville that I looked at. One was by the 24 School of Mines, Colorado School of Mines. One</p>

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<p style="text-align: right;">Page 230</p> <p>1 was by Gregg. Then there's a whole series of  2 documentation on -- on Argonaut, many reports on  3 Argonaut that --  4 MR. FROST:  5 Q Okay. You mentioned the Johnson mine.  6 Again, we established before, but for that one  7 reference that talks about --  8 I forget the ore numbers. I believe  9 they're 500 -- 507.  10 You have nothing else -- you certainly  11 have nothing to show that Grade 66 talc ever came  12 from the Johnson mine; correct?  13 MS. O'DELL:  14 Object to the form.  15 A I'm not sure about Grade 66. I don't  16 know what they called it when Johnson mine was  17 operating.  18 I think that I have one other document  19 that -- that would indicate that for a short  20 period of time cosmetic talc was produced at  21 Johnson.  22 MR. FROST:  23 Q But you agree with me the only document  24 we've been able to come up with thus far, I</p>	<p style="text-align: right;">Page 232</p> <p>1 misidentification of platy talc lying on plane as  2 potentially fibrous?  3 MS. O'DELL:  4 Object to the form.  5 A I think that that's something that is  6 fairly common. You turn a plate on edge, it  7 looks like fiber.  8 MR. FROST:  9 Q Yeah. And that's because most of the  10 microscopes are 2D as opposed to 3D image?  11 A Correct.  12 MS. O'DELL:  13 Object to the form.  14 A I -- can you -- can you ask or make  15 that statement again about the 2D versus 3D?  16 MR. FROST:  17 Q And that's because when you're looking  18 at a 2D image, it's hard to tell if you're  19 looking at something on plane or on edge?  20 A That's kind of an -- that's an  21 interesting comment, because when you're using a  22 polarized light microscope, if you're just using  23 a ground-up talc sample, the way you do that, you  24 put a little pinch of the talc on a glass slide</p>
<p style="text-align: right;">Page 231</p> <p>1 believe, was Grade 500 and 549, according to my  2 notes --  3 MS. O'DELL:  4 Objection.  5 MR. FROST:  6 Q -- for the grades that were coming out  7 of the Johnson mine?  8 MS. O'DELL:  9 Object to the form. Misstates --  10 A That was -- that was what it said at  11 the place that you pointed to.  12 MR. FROST:  13 Q Okay. And you agree that Grade 500 or  14 Grade 49 [sic] would be different than Grade 66,  15 which was also listed --  16 A I would think so.  17 Q -- on that document?  18 Have you ever done any work identifying  19 talc as either platy or fibrous in your academic  20 career?  21 A I have not.  22 Q Are you aware -- I'll call it the  23 contour, but it's probably the wrong word for it.  24 But are you aware that there's a problem with</p>	<p style="text-align: right;">Page 233</p> <p>1 and then you put a drop of refractive index oil  2 on it. That does tend to make the plates lay  3 down.  4 Q Okay.  5 A And it would reduce the -- probably  6 reduce the number of those standing on edge.  7 And, so, from the standpoint of are you always  8 looking at two-dimensional materials, it's  9 probably not right.  10 If you used a binocular scope, which  11 some people do, for the initial examination, that  12 certainly gives you some depth of field, which  13 then translates into 3D.  14 Q Okay. I guess my comment was sort of a  15 nonscientific way. And that's the images, it's,  16 you know, flat plane versus edge --  17 A Right.  18 Q -- and the edge can be mistaken for  19 fiber; correct?  20 A Correct.  21 Q Okay.  22 All right. Page 10 of your report  23 under the section of "Italy."  24 A Okay.</p>

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<p style="text-align: right;">Page 234</p> <p>1 Q It reads, "Deposits derived from 2 sedimentary carbonate rock, such as the Italian 3 deposits, typically contain accessory minerals 4 that may include asbestos (actinolite and 5 tremolite in asbestiform habits) and the chlorite 6 family minerals." 7 Right? 8 A Correct. 9 Q And then, you know, you continue on to 10 talk about Pooley, and you cite, you know, the 11 various documents. I can read the whole thing if 12 you want. But at the end of that you say various 13 different documents, right, that support that 14 position? 15 A Yeah. 16 Q Okay. 17 I'll mark -- what number are we at? 18 THE COURT REPORTER: 19 15. 20 MR. FROST: 21 I should be able to get through this 22 pretty quickly, Leigh, and then we -- then we 23 can -- we can break. 24 MS. O'DELL:</p>	<p style="text-align: right;">Page 236</p> <p>1 Q Okay. Do you have the marked document 2 in front of you? 3 Okay. If you look at the report, the 4 first document you cite to is JNJ_00030983. And 5 do you agree that's the document I've put in 6 front of you? 7 A I don't know. It doesn't look like it. 8 Oh, wait a minute. 9 Q Look at the very -- the very bottom 10 right. 11 A Yeah. There's three different sets of 12 numbers on this thing. I'm not even sure this is 13 the right document. 14 MS. O'DELL: 15 That -- 16 MR. FROST: 17 Q Well, that's what I was gonna say is 18 that I can tell you this is the document that was 19 produced as JNJ_00030983. And you agree with me 20 this is -- appears to be an epidemiological 21 study, not a -- not a mining study; correct? 22 A Yeah. And this is -- this is my fear 23 all the way through here, you know. When I've 24 gotten multiple Bates numbers on things, I have</p>
<p style="text-align: right;">Page 235</p> <p>1 Yeah. If we could break at 2:50 -- 2 MR. FROST: 3 Yeah. 4 MS. O'DELL: 5 -- that would be -- because I need 6 to -- 7 MR. FROST: 8 Yeah. I think we can get through the 9 next set of documents in five minutes. Should -- 10 MS. O'DELL: 11 Okay. 12 MR. FROST: 13 I should be able to do it. 14 MS. O'DELL: 15 I need -- we need a little bit of time 16 to get -- 17 MR. FROST: 18 Yeah. No. I get it. 19 MS. O'DELL: 20 -- prepared for the call to the court. 21 Thank you. 22 (DEPOSITION EXHIBIT NUMBER 15 23 WAS MARKED FOR IDENTIFICATION.) 24 MR. FROST:</p>	<p style="text-align: right;">Page 237</p> <p>1 to pick one. And this -- I don't think this is a 2 document that I've looked at. 3 Q Okay. 4 MS. O'DELL: 5 And, to be fair, it's -- it's -- this 6 is the -- what's been given to him is J&amp;J, not J, 7 capital N, J. So it's not identical to what's in 8 his report. So I would just point that out. I'm 9 not sure if that's -- 10 MR. FROST: 11 No, no. Look at the very bottom 12 number, JNJ, bottom right hand. 13 MS. O'DELL: 14 Oh, I see. But still, I'm not sure 15 that -- that -- it's not underscore. So I -- I 16 don't believe it's the same one. But if there's 17 an error on the Bates number, we'll address that. 18 MR. FROST: 19 I will say as production, this is the 20 one that matches the JNJ_, et cetera. 21 I have marked this one as the next one. 22 (DEPOSITION EXHIBIT NUMBER 16 23 WAS MARKED FOR IDENTIFICATION.) 24 MR. FROST:</p>

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<p style="text-align: right;">Page 238</p> <p>1 Q I think you're gonna recognize this</p> <p>2 document. So this is the second document in the</p> <p>3 series.</p> <p>4 A I am gonna recognize it?</p> <p>5 Q JNJ000016791.</p> <p>6 A Yeah.</p> <p>7 Q Again, this is a --</p> <p>8 A Something's screwed up.</p> <p>9 Q Seems to be a better copy of the same</p> <p>10 document.</p> <p>11 A Yeah.</p> <p>12 Q Okay. All right. Move on to the next</p> <p>13 one which is cited, which is the JNJ60592.</p> <p>14 (DEPOSITION EXHIBIT NUMBER 17</p> <p>15 WAS MARKED FOR IDENTIFICATION.)</p> <p>16 A Okay.</p> <p>17 MR. FROST:</p> <p>18 Q Okay. You'll agree with me that this</p> <p>19 document talks about the presence of quartz.</p> <p>20 Nowhere does it talk about the presence of</p> <p>21 fibrous amphiboles.</p> <p>22 A Correct.</p> <p>23 Q Okay. Move on to the next one, tab --</p> <p>24 which is JNJ238194.</p>	<p style="text-align: right;">Page 240</p> <p>1 quality, purity, uniformity and reliability of</p> <p>2 supply, outstanding performance for many years</p> <p>3 when compounded into Johnson's baby powder."</p> <p>4 A Right.</p> <p>5 Q Okay. All right. This last one I'll</p> <p>6 mark, and then we can break.</p> <p>7 So this is the Pooley report, which is</p> <p>8 JNJ322351.</p> <p>9 A Is this the long one or there's --</p> <p>10 there's multiply Pooley reports.</p> <p>11 Q Yeah, I believe this is the long one.</p> <p>12 A Okay.</p> <p>13 Q It's the one that deals with the</p> <p>14 Italian mines.</p> <p>15 A Yeah. Well, there are a number of</p> <p>16 them.</p> <p>17 Q Yeah. There's one that's extremely</p> <p>18 short --</p> <p>19 A Yeah.</p> <p>20 Q -- and then there's the longer one.</p> <p>21 This is the longer of the two.</p> <p>22 (DEPOSITION EXHIBIT NUMBER 19</p> <p>23 WAS MARKED FOR IDENTIFICATION.)</p> <p>24 MR. FROST:</p>
<p style="text-align: right;">Page 239</p> <p>1 Sorry. What number are we on?</p> <p>2 THE COURT REPORTER:</p> <p>3 18.</p> <p>4 MR. FROST:</p> <p>5 18.</p> <p>6 (DEPOSITION EXHIBIT NUMBER 18</p> <p>7 WAS MARKED FOR IDENTIFICATION.)</p> <p>8 MR. FROST:</p> <p>9 Q And, again, if you want, I can give you</p> <p>10 time to look at it. But, specifically, we're</p> <p>11 talking about Italy, which is on the first page.</p> <p>12 My question here is, again, this</p> <p>13 document nowhere mentions fibrous amphiboles or</p> <p>14 fibrous serpentines with respect to the -- the</p> <p>15 ore; correct?</p> <p>16 A Hang on a sec. Let me look that up. I</p> <p>17 don't think that this is the document I was</p> <p>18 referencing. Huh-uh. Hang on.</p> <p>19 Yeah. I don't think that's the right</p> <p>20 document.</p> <p>21 Q Okay. And, in fact, if we're looking</p> <p>22 at this document, under Category 1, "Maximum</p> <p>23 Confidence," which includes the Italian ore, it</p> <p>24 states, quote, "Long experience of established</p>	<p style="text-align: right;">Page 241</p> <p>1 Q And I'll first address your attention</p> <p>2 to page 6 of the report.</p> <p>3 A Okay.</p> <p>4 Q The bottom paragraph, he sort of --</p> <p>5 it's the summary of what he's doing.</p> <p>6 A Hang on. I may have the wrong page.</p> <p>7 All right. I've got it.</p> <p>8 Q Okay. The second sentence is,</p> <p>9 "Numerous photomicrographs taken under PPL and XN</p> <p>10 are provided with the descriptions to illustrate</p> <p>11 the rock textures, which it is hoped will provide</p> <p>12 information useful to the continuing" -- or --</p> <p>13 A I'm sorry, Jack. Show me the --</p> <p>14 Q Sure. It's --</p> <p>15 A You say it's page 6?</p> <p>16 Q Page 6.</p> <p>17 A Okay. All right. I've got it.</p> <p>18 MS. O'DELL:</p> <p>19 I'm on a different page 6, so give me</p> <p>20 just a minute.</p> <p>21 MR. FROST:</p> <p>22 Sure. It says "page 6" at the top.</p> <p>23 Q Must be more full page sixes.</p> <p>24 A Yeah, I think there may be.</p>



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<p>1 Q One, two, three, four, five --</p> <p>2 MS. O'DELL:</p> <p>3 The page 6 I have, it's -- it's got a</p> <p>4 picture on it. So it's not what you're --</p> <p>5 MR. FROST:</p> <p>6 So it's the ninth page in.</p> <p>7 MS. O'DELL:</p> <p>8 And I'm sorry. It's right before our</p> <p>9 call with the Court.</p> <p>10 MR. FROST:</p> <p>11 Yeah, that's fine. We can pause here.</p> <p>12 VIDEOGRAPHER:</p> <p>13 Going off the record. The time is</p> <p>14 12:53 p.m.</p> <p>15 (OFF THE RECORD.)</p> <p>16 VIDEOGRAPHER:</p> <p>17 We're back on the record. The time is</p> <p>18 1:48 p.m.</p> <p>19 MR. FROST:</p> <p>20 Q Okay. Welcome back from lunch, sir.</p> <p>21 So we were on page 6 of the Pooley</p> <p>22 report.</p> <p>23 A Okay. Right.</p> <p>24 Q I believe you're on the correct page.</p>	<p>1 MR. FROST:</p> <p>2 Yeah, the entire exhibit.</p> <p>3 Q Look at the bottom paragraph. On --</p> <p>4 Sorry. On the page on the left.</p> <p>5 Okay. The second sentence down says,</p> <p>6 "The only asbestos-type mineral to be detected in</p> <p>7 the Hamm samples was tremolite, which was found</p> <p>8 in three of the specimens. The tremolite was</p> <p>9 associated" --</p> <p>10 Under our conclusion.</p> <p>11 -- "with carbonate minerals, mainly</p> <p>12 magnesite and calcite. No tremolite was detected</p> <p>13 in the talc-typed specimens."</p> <p>14 A Okay.</p> <p>15 Q And, then, if you go to the</p> <p>16 second-to-last paragraph of the paper --</p> <p>17 A Okay.</p> <p>18 Q -- towards the bottom of that paragraph</p> <p>19 it reads, "Particles formed of the amphibole</p> <p>20 mineral found at the mine were hardly fibrous in</p> <p>21 character, the majority of the tremolite breaking</p> <p>22 in -- breaking to give compact particles."</p> <p>23 A Uh-huh.</p> <p>24 Q I read it poorly, but did I read it</p>
Page 243	Page 245
<p>1 A Uh-huh.</p> <p>2 Q Okay. The bottom paragraph?</p> <p>3 A Right.</p> <p>4 Q Okay. It's talking about the report,</p> <p>5 and it says, "Numerous photomicrographs taken</p> <p>6 under PPL and XN are provided with the</p> <p>7 description to mainly illustrate the rock</p> <p>8 textures, which it is hoped will provide</p> <p>9 information useful in the" --</p> <p>10 That's a tough one.</p> <p>11 -- "continuation" --</p> <p>12 A Right.</p> <p>13 Q -- "of particular -- of particularly</p> <p>14 the talc ore samples and also displays the</p> <p>15 nonoccurrence of asbestiform amphiboles in the</p> <p>16 talc ore."</p> <p>17 Did I read that correctly?</p> <p>18 A Yes.</p> <p>19 Q And if you turn to the last two</p> <p>20 pages --</p> <p>21 A The last two?</p> <p>22 Q Yeah, the last two.</p> <p>23 MS. O'DELL:</p> <p>24 Of the entire exhibit?</p>	<p>1 right?</p> <p>2 MS. O'DELL:</p> <p>3 Object to the form.</p> <p>4 A Right. I've read it.</p> <p>5 MR. FROST:</p> <p>6 Q Okay. So do you agree with me that the</p> <p>7 Pooley report does not mention finding any</p> <p>8 fibrous materials at the -- the Italian mine?</p> <p>9 MS. O'DELL:</p> <p>10 Object to the form.</p> <p>11 A Yeah.</p> <p>12 This isn't the only Pooley report.</p> <p>13 MR. FROST:</p> <p>14 Q This is the one that's cited in your</p> <p>15 report on --</p> <p>16 A Right. There's more --</p> <p>17 Q -- page 10; correct?</p> <p>18 A There's more than one. But I think</p> <p>19 that in the material that you read, he doesn't --</p> <p>20 does not mention fibrous tremolite.</p> <p>21 Q You'd agree this is the document that</p> <p>22 starts JNJ000322351 that you cite in your report</p> <p>23 on page 10?</p> <p>24 A Right. That's that one.</p>

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<p style="text-align: right;">Page 246</p> <p>1 Q Okay.</p> <p>2 Great. Sorry. I've got to reorient</p> <p>3 myself where I am in your report. If you'll give</p> <p>4 me a second.</p> <p>5 A It's all right.</p> <p>6 VIDEOGRAPHER:</p> <p>7 Jack, do you have your mic on?</p> <p>8 MR. FROST:</p> <p>9 I do not.</p> <p>10 Q Page 10, we're under "Italy." So about</p> <p>11 halfway through your paragraph, you have a</p> <p>12 sentence that reads, "Chrysotile is also reported</p> <p>13 in the Val Chisone mineral suite in 1971 by</p> <p>14 Ashton."</p> <p>15 A Right.</p> <p>16 Q And you cite JNJAZ55-6103.</p> <p>17 I've got that document.</p> <p>18 A And he's got a list of minerals kind of</p> <p>19 in the middle of -- in the middle of the page</p> <p>20 there, and chrysotile, I think, is mentioned.</p> <p>21 Right.</p> <p>22 (DEPOSITION EXHIBIT NUMBER 20</p> <p>23 WAS MARKED FOR IDENTIFICATION.)</p> <p>24 MR. FROST:</p>	<p style="text-align: right;">Page 248</p> <p>1 Object to the form.</p> <p>2 MR. FROST:</p> <p>3 Q Because it continues, "And the minerals</p> <p>4 we'll show in the valley are."</p> <p>5 MS. O'DELL:</p> <p>6 Object to the form.</p> <p>7 A Well, the valley is where the mine is.</p> <p>8 MR. FROST:</p> <p>9 Q Okay. But he's not saying that he has</p> <p>10 found talc, pyrite, magnesite, calcite, dolomite,</p> <p>11 apatite, clinochlore, chrysotile, tourmaline,</p> <p>12 tremolite, actinolite, aluminite, and albite all</p> <p>13 in the Fontane mine ore; correct?</p> <p>14 MS. O'DELL:</p> <p>15 Object to the form.</p> <p>16 A Well, I'm -- I'm not sure that he even</p> <p>17 relates Fontane in that paragraph at all.</p> <p>18 MR. FROST:</p> <p>19 Q Exactly. He's just talking about the</p> <p>20 mineralization of the valley --</p> <p>21 A That's right.</p> <p>22 Q -- correct?</p> <p>23 A But Fontane's in the valley.</p> <p>24 Q Yes. But there are lots of other</p>
<p style="text-align: right;">Page 247</p> <p>1 Q Yeah, it's -- you're talking about</p> <p>2 where the -- the arrow is on the paper?</p> <p>3 A Correct.</p> <p>4 Q And you'd also agree with me that</p> <p>5 he's -- he's talking about the valley, what --</p> <p>6 mineralizations in the valley. He's not talking</p> <p>7 about the Fontane ore or mine specifically;</p> <p>8 correct?</p> <p>9 A He might have been.</p> <p>10 Q But there's no way to tell by this</p> <p>11 document; correct?</p> <p>12 MS. O'DELL:</p> <p>13 Object to the form.</p> <p>14 A Well, this is a general comment about</p> <p>15 the location.</p> <p>16 MR. FROST:</p> <p>17 Q Okay. And he's talking about, "I have</p> <p>18 checked into the mineralization of the part of</p> <p>19 the territory"; correct?</p> <p>20 MS. O'DELL:</p> <p>21 Object to the form.</p> <p>22 MR. FROST:</p> <p>23 Q He's talking about the valley?</p> <p>24 MS. O'DELL:</p>	<p style="text-align: right;">Page 249</p> <p>1 places in the valley that aren't the Fontane</p> <p>2 mass; correct?</p> <p>3 MS. O'DELL:</p> <p>4 Object to the form.</p> <p>5 A That's right. But I don't know why</p> <p>6 he'd be interested in them.</p> <p>7 MR. FROST:</p> <p>8 Q So you're telling me, by reading this,</p> <p>9 you couldn't relate to the fact that he's found</p> <p>10 all of these and they're associated with the</p> <p>11 Fontane mine because that mine is located in that</p> <p>12 valley?</p> <p>13 A I think if you read what's been</p> <p>14 published about this, what you find is that the</p> <p>15 host rocks that contain the carbonate sequence</p> <p>16 with the talc in it is rich in some of these.</p> <p>17 Q Okay. And, again, you're --</p> <p>18 A So he's probably --</p> <p>19 And I'm, once again, I'm making an</p> <p>20 assumption. I don't think he'd go out and decide</p> <p>21 that he'd go up to the rim of the valley and</p> <p>22 collect a bunch of rocks that have nothing to do</p> <p>23 with -- with J&amp;J or who he was working for.</p> <p>24 But, you know, I think that the list of</p>

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<p style="text-align: right;">Page 250</p> <p>1 minerals here could be extended out to the edges  2 of -- of the ore body. And if you went to the  3 Fontane mine, went underground, you could  4 probably find these minerals in the ore body but  5 next to the host rocks because --  6 Q Okay.  7 A Well, anyway, this is a pretty  8 extensive suite. And -- and the reason I say  9 that is tourmaline is not a mineral that you  10 would see in a -- in a talc ore body, but it  11 would occur next to one.  12 Q So I've heard in your answer a lot of  13 "I guess, I suppose." I mean, you can't sit here  14 and tell me that, "Yeah, this shows the  15 chrysotile is associated with the Fontane ore  16 body"; correct?  17 MS. O'DELL:  18 Object to the form.  19 A Well, it has to be associated with  20 whatever processes took place that would form  21 chrysotile. And it wouldn't be in the enclosing  22 schists. I mean, that -- that's just not the  23 right locale.  24 MR. FROST:</p>	<p style="text-align: right;">Page 252</p> <p>1 any talc from the Italian mines; correct?  2 A There is a document that says that they  3 were considering using it again.  4 Q Okay.  5 A And it's in that time period.  6 Q But, again, they weren't using it.  7 They were considering using it.  8 A To my knowledge, they weren't.  9 Q Okay. And, to this day, you're  10 aware -- I think you say in your report from '03  11 to today they used Chinese talc. Correct?  12 A That's my -- my understanding.  13 Q Skipping down, next couple sentences,  14 it says, "A paper describing asbestos in Italian  15 talc deposits was published by Marconi and Verdel  16 in 1990."  17 A Okay.  18 Q Do you recall that?  19 A Yeah, I recall the reference, sure.  20 Q Do you recall whether or not they say  21 that there's any asbestos found in the Fontane  22 mine deposit?  23 A I'm not sure they say that  24 specifically.</p>
<p style="text-align: right;">Page 251</p> <p>1 Q So, again, my -- my question is just  2 because it says "chrysotile" in this document  3 doesn't mean there's chrysotile in the ore at  4 Fontane; correct?  5 MS. O'DELL:  6 Object to the form.  7 A Yeah. He doesn't say --  8 MR. FROST:  9 Q Okay.  10 A He doesn't specifically say the Fontane  11 mine.  12 Q Okay. And, again, I think you --  13 tourmaline, you pointed out, wouldn't even be  14 associated with the talc.  15 A You wouldn't -- you wouldn't think so.  16 Q Okay. Moving on, on page 10 you note  17 that "Fibrous tremolite" --  18 Do you see where I am? It's another  19 sentence down.  20 "Fibrous tremolite was reported from  21 Italian talc as late as 2009."  22 A Correct.  23 Q Okay. And you agree with me that, by  24 2009, Johnson &amp; Johnson certainly wasn't sourcing</p>	<p style="text-align: right;">Page 253</p> <p>1 Q Okay. I'll mark it. I'll show it to  2 you.  3 (Technical difficulties)  4 THE COURT REPORTER:  5 Do you want to go off the record?  6 MR. FROST:  7 Yeah, I was gonna say, let's go off the  8 record.  9 VIDEOGRAPHER:  10 Going off the record. The time is  11 1:57 p.m.  12 (OFF THE RECORD.)  13 VIDEOGRAPHER:  14 We're back on the record. The time is  15 1:58 p.m.  16 MR. FROST:  17 Q Okay. We are marking the Marconi and  18 Verdel Exhibit 21.  19 (DEPOSITION EXHIBIT NUMBER 21  20 WAS MARKED FOR IDENTIFICATION.)  21 MR. FROST:  22 Q And I'll -- I'm specifically looking at  23 pages 109, 110.  24 A Okay.</p>

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<p>1 Q At the very bottom of 109 -- of 109, 2 the section called "Results and Discussion." 3 A Right. 4 Q And it says, "Sample still in 5 production does not show the presence of 6 serpentine or tremolite amphibole minerals." 7 Did I read that correctly? 8 A Yes. 9 Q If you turn over to 110, if you look at 10 Table 1, which is the mean mineralogy composition 11 of talcs from active Italian mines, the first one 12 is the Fontane mine in Piedmont; right? 13 A Right. 14 Q Okay. On page 11 of your report, in 15 that first paragraph we're now -- we've moved on 16 to the Vermont deposits. 17 A Okay. 18 Q And, at the end of that -- that first 19 paragraph, there's a sentence that says, "These 20 include the Carlton talc mine in Chester, Windsor 21 County, and other Vermont serpentinite-related 22 actinolite or tremolite occurrences as documented 23 by Seymour" -- you have (J&amp;J 53200) -- "at 24 Hammondsville, the Barton steatite quarry, Holden</p>	<p>1 MS. O'DELL: 2 Object. 3 MR. FROST: 4 Q And, again, I can -- 5 A Wow. 6 Q I can mark it if you want. 7 A That's a long thesis. 8 Q It's a very long paper. 9 A I'm not saying that somewhere in there 10 he doesn't say Hammondsville, but he doesn't -- 11 he doesn't present any significant information 12 about Hammondsville. 13 Q Okay. Well, it's a happy medium. I 14 can tell you that the word "Hammondsville" is not 15 there -- 16 A Okay. 17 Q -- but you agree with me he's certainly 18 not talking specifically about the Hammondsville 19 geology? 20 A No. 21 MS. O'DELL: 22 Object to the form. 23 A Yeah. He -- he's not talking about 24 geology at the Hammondsville mine. The geology</p>
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<p>1 talc quarry, Rochester verde antique quarry, and 2 Mad River mine." 3 I've read it, again, poorly, but did I 4 read it correctly? 5 A Right. Well, and, in all fairness, 6 this is a paragraph that I began to take material 7 out of to add to tables. 8 Q Okay. 9 A So it may read herky-jerky because of 10 that. You know, it doesn't -- it doesn't flow as 11 brilliantly as it did when I first wrote it. 12 Q Okay. I'm not gonna -- I won't 13 question you on that. 14 A Okay. 15 Q Do you agree with me that the Seymour 16 report only relates to the East Johnson mine in 17 particular? I can mark it if you want me to. 18 A He actually mentions some other mines 19 in it, but just giving them as examples of other 20 locations. And he mentions little mineralogy. 21 But his thesis is the Johnson mine. 22 Q Okay. And you agree with me that the 23 paper nowhere -- the paper nowhere mentions the 24 Hammondsville mine; correct?</p>	<p>1 may be quite similar. 2 MR. FROST: 3 Q Okay. 4 A But he's not -- 5 Q He's not focusing on the geology of 6 Hammondsville. 7 A Right. 8 Q Do you know whether or not commercial 9 asbestos was ever mined from either 10 Hammondsville, Hamm, Argonaut, or the Rainbow 11 mines? 12 A I don't think it was ever mined from 13 that north-south trend at Ludlow. 14 Q Okay. 15 A I'm not sure about Hammondsville. 16 The -- the Hammondsville deposit is pretty large, 17 and it -- you know, it was mined underground, and 18 I don't have a reference that says that it was. 19 Q Okay. That was my next question. 20 Sitting here, you certainly can't point me to 21 anything that ever says Hammondsville was used as 22 an asbestos mine; right? 23 A I don't have a reference to that. 24 On the other hand, it would be</p>

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<p style="text-align: right;">Page 258</p> <p>1 interesting to -- to actually do an asbestos 2 study for the same areas that we've done a talc 3 study for. And I actually have not done that. 4 In fact, I was surprised when I found 5 that talc had been mined on Belvidere Mountain. 6 I was surprised. 7 So, you know, it's not impossible that 8 at some point in time there was asbestos mined 9 somewhere near Hammondsville in the same rock 10 unit. 11 Q You don't know one way or the other -- 12 A No. 13 Q -- sitting here today? 14 All right. Still on page 11 of your 15 report, you note -- it's the paragraph that 16 starts "A literature review for Vermont talc." 17 A Okay. 18 MS. O'DELL: 19 Still on page 11? 20 MR. FROST: 21 Yes, still on page 11. 22 Q Sorry. 23 A It's all right. 24 Q Trying to orient myself. I apologize.</p>	<p style="text-align: right;">Page 260</p> <p>1 Yep. 2 (DEPOSITION EXHIBIT NUMBER 22 3 WAS MARKED FOR IDENTIFICATION.) 4 MR. FROST: 5 Q I don't believe this report is on your 6 literature list. Is that correct? 7 A I certainly have it. I'm not sure 8 whether I used it or not. I don't believe I did, 9 but -- but I could have. 10 If I had used it, I would have probably 11 been referencing maybe some of the other similar 12 deposits elsewhere than -- or elsewhere than 13 Vermont. 14 Q Okay. Quickly, if you turn to page 49 15 of this document. 16 A Okay. 17 MS. O'DELL: 18 And if you need a minute to take a look 19 at it, Dr. Cook, feel free to do that. 20 MR. FROST: 21 Q Although I promise you the question is 22 really easy. 23 MS. O'DELL: 24 Well, but --</p>
<p style="text-align: right;">Page 259</p> <p>1 I can't find where it is in your 2 report -- bear with me -- but one of the 3 publications you rely on in your report is the 4 Chidester 1951 USGS survey. Does that ring a 5 bell? I'm sure I'm saying it wrong. 6 A Chidester, Billings and Cady? 7 Q Yes. I've got it. 8 A Okay. 9 Q And do you agree with me that the 10 Hammondsville mine in particular is called out in 11 his report? Correct? 12 A He mentions it very briefly. 13 Q And you agree with me that nowhere does 14 Chidester mention the occurrence of asbestos 15 associated with the Hammondsville mine; correct? 16 MS. O'DELL: 17 Object to the form. 18 A That's correct. 19 MR. FROST: 20 Q And, then, I believe the Chidester 64 21 document is also on -- 22 I'm gonna mark this document. I 23 believe we're on 22. 24 THE COURT REPORTER:</p>	<p style="text-align: right;">Page 261</p> <p>1 MR. FROST: 2 Q No. No, but I agree. If you need time 3 to read it, please take your time. 4 A Yeah. Go ahead. 5 Q So if you look at the Table 22, if you 6 look below -- 7 A Right. 8 Q -- you agree with me that 40A, 40B, and 9 40C are all testing of products that have come 10 from the Hammondsville quarry; correct? 11 A Looks that way. 12 Q Okay. 13 A These are chemical analyses. I think 14 that I'm looking at the right table. 15 Q Yes, you're looking at the right table. 16 A Okay. 17 Q But I'm just noting that, you know, 18 here's another Chidester article where USGS is 19 specifically looking at the Hammondsville quarry. 20 You agree with me on that one; right? 21 A Yes. 22 Q If you look -- I think you mentioned 23 NIOSH earlier this morning; correct? You're at 24 least aware who NIOSH is?</p>

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<p style="text-align: right;">Page 262</p> <p>1 MS. O'DELL: 2 I don't think he's mentioned NIOSH, 3 but -- 4 MR. FROST: 5 Q I thought you had. But do you know who 6 NIOSH is? 7 A Right. 8 Q And are you aware that NIOSH did an 9 epidemiological study of talc miners working at 10 the various Vermont talc plants? 11 A I know it exists. I don't know the 12 results. 13 Q Okay. And are you aware the reason 14 that NIOSH specifically chose the Vermont talc 15 mines for purposes of the study? 16 A No. 17 Q Were you ever aware that NIOSH chose 18 them because they believed those talc mines to be 19 asbestos-free? 20 MS. O'DELL: 21 Objection to form. 22 MR. FROST: 23 Q And if you haven't, okay. 24 A No, I didn't know that.</p>	<p style="text-align: right;">Page 264</p> <p>1 A This is -- it's kind of interesting 2 that they would write this paper. 3 MR. FROST: 4 Q Why is that? 5 A Well, the title, it -- it suggests that 6 they're willing to accept the fact that 7 asbestiform talc exists. 8 Q Okay. But if you turn to page 377, 9 under "Conclusions" -- 10 A Uh-huh. 11 Q Do you see where I am? 12 A Yep. 13 Hang on a sec. I can't make the pages 14 turn for me. Hang on a sec. 15 MS. O'DELL: 16 Yeah. Take a minute if you -- since 17 you haven't seen it, Doctor, if you need to look 18 at it, feel free to take a look at it. 19 A Have you noticed that half the 20 documents we've got don't have dates on them? 21 MR. FROST: 22 Q I have, actually. 23 A Have you noticed that? It's the most 24 irritating thing.</p>
<p style="text-align: right;">Page 263</p> <p>1 MR. FROST: 2 I'm gonna mark another exhibit. 3 MS. O'DELL: 4 23? 5 MR. FROST: 6 No. That's 22. No, 23. You're right. 7 (DEPOSITION EXHIBIT NUMBER 23 8 WAS MARKED FOR IDENTIFICATION.) 9 MR. FROST: 10 Q So on the fourth piece of paper, which 11 is probably the eighth page into -- I guess the 12 seventh page, it shows a paper or a study called 13 "Occupational exposures to non-asbestiform talc 14 in Vermont" by Boundy. 15 A Right. 16 Q Have you ever seen this paper before? 17 A I don't think so. 18 I don't think I referenced it, did I? 19 Q No. It's not in a reference. 20 A Huh-uh. I don't think I've seen it. 21 Q Okay. 22 MS. O'DELL: 23 If you need to take a minute and look 24 at it, Doctor, feel free to.</p>	<p style="text-align: right;">Page 265</p> <p>1 Q I have noticed that. 2 A See, this is a 1979 document. 3 Q That's correct. 4 A And yet their -- the title is 5 forward-looking. 6 Q So, again, once you're done looking at 7 it, I'm on page 377. 8 A Yeah, I'm there. I'm -- 9 Q Okay. You see under the first sentence 10 it says, "The Vermont talc industry was selected 11 by NIOSH for both epidemiological and 12 environmental surveys to distinguish a TWA dust 13 exposure because this talc is believed to contain 14 minimal amounts of quartz and asbestos." 15 And then if you look at the bottom 16 sentence, that paragraph, "Petrographic 17 microscopy analysis, analytical transmission 18 electron microscopy, and x-ray diffraction with 19 step scanning revealed no asbestos in the bulk 20 samples." 21 Correct? 22 MS. O'DELL: 23 That's what it states. 24 MR. FROST:</p>

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<p>1 Q That's what it states?</p> <p>2 A That's what it states. But in the</p> <p>3 first thing that you read, it says minimum --</p> <p>4 minimal amounts.</p> <p>5 Q Of, quotes, in asbestos.</p> <p>6 A Right. I would question, you know,</p> <p>7 whether some of those analytical techniques are</p> <p>8 sufficient to say there's no asbestos.</p> <p>9 Q So you believe that TEM is</p> <p>10 insufficient?</p> <p>11 A TEM, I think, is -- is okay.</p> <p>12 Q Okay.</p> <p>13 A But I don't think XRD is.</p> <p>14 Q Okay. But, again, analytical</p> <p>15 transmission electron microscopy, that's TEM;</p> <p>16 right?</p> <p>17 A It is. But, now, that's gonna tell you</p> <p>18 the -- the mineralogy of a specific particle.</p> <p>19 Q Okay.</p> <p>20 A One particle. Okay?</p> <p>21 Q Sure. But you agree that TEM is a</p> <p>22 proper --</p> <p>23 A Well, the point is that they can't have</p> <p>24 analyzed a lot of -- a lot of samples because</p>	<p>1 mentioned in those mines in the mineral index of</p> <p>2 Vermont, which, you know, it isn't complete, but</p> <p>3 I think that it's a useful thing to cite.</p> <p>4 So, no, I can't think of any in the</p> <p>5 published literature. They may exist. I'm just</p> <p>6 drawing a blank right now.</p> <p>7 Q Okay. All right. So turn to page 11,</p> <p>8 sir, of your report.</p> <p>9 A Okay.</p> <p>10 Q You state, about halfway through,</p> <p>11 "Amphibole in amounts less than .1 percent were</p> <p>12 found in float feed in Hamm mine ore as reported</p> <p>13 in a product certification report in 1992."</p> <p>14 And then you cite Imerys 151337.</p> <p>15 A Hopefully, that's the right report.</p> <p>16 MR. FROST:</p> <p>17 Mark this as 24.</p> <p>18 (DEPOSITION EXHIBIT NUMBER 24</p> <p>19 WAS MARKED FOR IDENTIFICATION.)</p> <p>20 MR. FROST:</p> <p>21 Here you are.</p> <p>22 Q And, again, you'll agree with me this</p> <p>23 is not a product certification?</p> <p>24 A No. This is a -- not something I've</p>
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<p>1 it's too time-consuming and too expensive. So</p> <p>2 the fact that they didn't find any asbestos with</p> <p>3 TEM is, you know, that's interesting.</p> <p>4 Q And, again, that's just speculating</p> <p>5 because I'm looking at this sentence, how much</p> <p>6 they looked at and what they looked at.</p> <p>7 A Right.</p> <p>8 Q Okay. Okay. Can you point me to any</p> <p>9 specific geology studies or reports in the</p> <p>10 published literature that show there's any</p> <p>11 asbestos at the Hammondsville, Hamm, Argonaut, or</p> <p>12 Rainbow mines?</p> <p>13 A In the published literature?</p> <p>14 Q Yes, in the published literature.</p> <p>15 A No.</p> <p>16 Q Okay. Turn to page 11 of your report.</p> <p>17 A Let me -- I'm still thinking about my</p> <p>18 very rapid "no" response. We were mine-specific.</p> <p>19 I'm thinking about -- back about the US</p> <p>20 Geological Survey's database. I don't think</p> <p>21 there -- that they have pointed out asbestos in</p> <p>22 those mines. I don't think they have. They have</p> <p>23 in some, but I don't think those were -- were</p> <p>24 mentioned. I don't think that asbestos was</p>	<p>1 seen before.</p> <p>2 Q Okay. And this certainly doesn't talk</p> <p>3 about amphibole found in float feeder in the</p> <p>4 mine?</p> <p>5 A No.</p> <p>6 Q Okay. Turn to page 12. The top</p> <p>7 paragraph, it says, "Concern with incorporating</p> <p>8 serpentine and lampr- --"</p> <p>9 A Lamprophyre.</p> <p>10 Q -- "lamprophyre" --</p> <p>11 A Uh-huh.</p> <p>12 Q -- "from dikes in processed Vermont ore</p> <p>13 was expressed in 2006" --</p> <p>14 A Right.</p> <p>15 Q -- "suggesting a maximum of 2 percent</p> <p>16 for serpentine."</p> <p>17 Do you also agree with me that by '06</p> <p>18 Johnson &amp; Johnson was no longer using Vermont</p> <p>19 talc? Correct?</p> <p>20 A Right. They were using it but not for</p> <p>21 cosmetic talc.</p> <p>22 Q Not for cosmetic talcum powder.</p> <p>23 A It was industrial.</p> <p>24 Q Right.</p>

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<p style="text-align: right;">Page 270</p> <p>1 A You know, the reason I had that in my 2 report was -- 3 MS. O'DELL: 4 Go ahead. 5 THE WITNESS: 6 He's not listening. 7 MR. FROST: 8 Q I'm listening, sir. 9 A Are you? 10 Q Okay. Yes. 11 A -- was that there's no indication that 12 there was a dramatic change in geology at 13 Argonaut and, so, we know that the lamprophyre 14 dikes are -- are pretty prevalent there. So I'm 15 just pointing out once again that there, you 16 know, there are things that are there that could 17 have been in the ore from the start. 18 Q Okay. But, again, you know, we're 19 using "could have." We're just sort of guessing 20 at this point. 21 A Right. 22 MS. O'DELL: 23 Object to the form. 24 MR. FROST:</p>	<p style="text-align: right;">Page 272</p> <p>1 mineral. Every mineral's got multiple peaks. 2 And, so, if you've got a sample that's 3 got, let's say, talc, magnesite, and some 4 chlorite, you can have a very complicated x-ray 5 diffractogram and, unfortunately, there is 6 interference with some of the characteristic 7 peaks, particularly for chrysotile. I mean, you 8 just -- you can't do chrysotile by XRD because 9 there are two or three things that interfere with 10 the very peak that you need to look at. 11 And, so, it's hard -- it's hard to get 12 to .1, I would say. But I'm willing to accept 13 that. But I've, in my experience, I have never 14 been able to get there. 15 Q Okay. You agree the published 16 literature says .1, give or take -- 17 A Yeah. 18 Q -- is the accepted level or the -- the 19 level of sensitivity of the instrument? 20 A It's there. That's mentioned. 21 Q And are you aware that the FDA 22 regulates talcum powder? 23 MS. O'DELL: 24 Object to the form.</p>
<p style="text-align: right;">Page 271</p> <p>1 Q All right. Further down on page 12 -- 2 it's the next paragraph -- you write (as read:) 3 "Screening talc ore samples for trace to small 4 amounts of specific amphibole series by X-ray 5 diffraction is not adequate because of its was 6 [sic] high detection limit." 7 Do you see that? 8 A Uh-huh. Yes. 9 Q And what's your basis for the 10 statement? 11 A Well, I have done I don't know how many 12 years of analytical work with x-ray diffraction, 13 and for my clients, I'm not willing to give it 14 below 1 percent. But there you -- they do use 15 step scanning, which is a repetitive process that 16 exaggerates the presence of a peak. I'm willing 17 to buy .1, but that's it. I mean, I don't think 18 you could possibly do it below that. 19 And it depends on the peaks that you're 20 using, because some of these -- some of these 21 rock units have got minerals -- 22 I mean, all of them have multiple 23 peaks. Okay? You're not just dealing with an 24 x-ray pattern that has a single peak for one</p>	<p style="text-align: right;">Page 273</p> <p>1 A I've read that. 2 MR. FROST: 3 Q Okay. And you're aware that, under the 4 FDA agreed-upon testing, that XRD testing of bulk 5 talcum powder is the first step? 6 A Yes. Yes. That's been the first step 7 for decades. 8 Q Okay. And we've already talked about 9 this, but you don't have an opinion or you're not 10 qualified to give an opinion as to whether or not 11 any amphibole materials that might exist in talc 12 below .1 percent detection level could be capable 13 of causing human disease; right? 14 MS. O'DELL: 15 Object to the form. 16 A No. 17 MR. FROST: 18 Q Okay. Further down on that page, you 19 start talking about chlorite. 20 It's over on page 12, Leigh, third 21 paragraph down. 22 You note, "Chlorite family species can 23 contain specific heavy metals such as chromium 24 and are consistently reported in core logs from</p>

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<p style="text-align: right;">Page 274</p> <p>1 the Argonaut mine."  2 Then you have a cite and the example of  3 "chlorite content of 4.1 percent is reported for  4 its ores in a reserve study produced in '08.  5 Okay? And just because a level of  6 chlorite shows up in the drilling core logs  7 doesn't necessarily mean that it's in the talc  8 that's used to produce the ore; correct?  9 A Well, let me answer it in an  10 interesting way. When you look at the analyses  11 that we had --  12 And, by the way, earlier when I said I  13 hadn't seen a set of analyses that were in spec  14 for the metals, I was referring to Vermont.  15 Q Okay.  16 A I mean, you know, China's usually in  17 spec completely for metals.  18 But if you look at the -- the analyses  19 for Grade 66 talcum, if you have 99 percent talc,  20 which is wonderful, there's still 1 percent  21 something else. And that something else is  22 probably a chlorite family mineral. That's  23 probably the way you have got to explain that,  24 that other 1 percent.</p>	<p style="text-align: right;">Page 276</p> <p>1 A Whatever.  2 Q Still on page 12, but --  3 A Yep. Yep.  4 Q -- we'll move into China.  5 A Thanks.  6 Q You note at the second paragraph under  7 the heading "China," quote, "There was a report  8 of asbestos in Chinese talc in late 2009 (Imerys  9 309326)." And then you state, "In 2016  10 chrysotile particles were found in talc mined in  11 China (JNJ52161)."  12 All right. So let's look at those in  13 turn. Let's start with the Imerys 309326.  14 (DEPOSITION EXHIBIT NUMBER 25  15 WAS MARKED FOR IDENTIFICATION.)  16 MR. FROST:  17 Q And I'll direct your attention to the  18 last page.  19 A Yeah. Got it.  20 Q Okay. And I take it you're relying on  21 the sentence about halfway through. It says,  22 "Chinese authorities have informed J&amp;J" --  23 A Right.  24 Q -- "that its internal testing contained</p>
<p style="text-align: right;">Page 275</p> <p>1 If it is a chlorite family mineral,  2 then it's possible that these high metal numbers  3 that you have may be related to the chlorite, at  4 least in part. And that was -- that was the  5 reason for my comment.  6 Q Okay.  7 A I'm -- I'm trying to explain some of  8 the numbers.  9 Q I understand.  10 So it's more of a scientific  11 analysis --  12 A Right, exactly.  13 Q -- of here's how you could explain some  14 of the higher levels because they'd be associated  15 with chlorite?  16 A Right.  17 Q Okay.  18 MS. O'DELL:  19 This is the document I think that he  20 was asking you about.  21 THE WITNESS:  22 Okay.  23 MR. FROST:  24 Q All right. Gonna move on to China now.</p>	<p style="text-align: right;">Page 277</p> <p>1 asbestos in several talc body powers marketed in  2 China, including two products from J&amp;J."  3 A Correct.  4 Q Okay. Do you agree with me that it  5 continues to read, "However, four independent  6 Chinese laboratories using similar test method to  7 the Chinese authorities did not find any  8 asbestos. J&amp;J approached RTM" --  9 Which is Rio Tinto Minerals.  10 A Yeah.  11 Q -- "for help in the issue. RTM  12 provided initial support in identifying potential  13 drawback of the test method used by the Chinese  14 authorities. Chinese authorities invited J&amp;J and  15 others concerned -- J&amp;J, the other concerned talc  16 body powder companies and the four independent  17 Chinese laboratories whose asbestos test results  18 were negative, to discuss and resolve the test  19 method discrepancies."  20 I read that right?  21 A Yeah. Sure.  22 Q Okay. So, again, you're not noting in  23 here that there's a question as to whether or not  24 the Chinese talc findings of chrysotile are</p>

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<p style="text-align: right;">Page 278</p> <p>1 correct; right?</p> <p>2 MS. O'DELL:</p> <p>3 Object to the form.</p> <p>4 A Well, sure. I mean, it's a report</p> <p>5 of -- of asbestos in a particular sample. And it</p> <p>6 doesn't mean you can't take more samples that are</p> <p>7 asbestos-free.</p> <p>8 MR. FROST:</p> <p>9 Q Okay. And, again, do you know -- do</p> <p>10 you know if the Chinese authorities ever had the</p> <p>11 conversation with the various labs that tested</p> <p>12 whether or not they ever came to the</p> <p>13 determination that there truly was chrysotile?</p> <p>14 A I think --</p> <p>15 MS. O'DELL:</p> <p>16 Excuse me.</p> <p>17 Object to the form. Misstates the</p> <p>18 record.</p> <p>19 MR. FROST:</p> <p>20 Q You can answer.</p> <p>21 A I think that there is a whole series of</p> <p>22 memoranda and reports that relate to, you know,</p> <p>23 it was the bee in the bonnet here. And I don't</p> <p>24 remember the exact details of who did what to</p>	<p style="text-align: right;">Page 280</p> <p>1 Excuse me. Just give me a second,</p> <p>2 Jack.</p> <p>3 MR. FROST:</p> <p>4 Sure.</p> <p>5 MS. O'DELL:</p> <p>6 Were you finished? I apologize. I was</p> <p>7 trying to get --</p> <p>8 MR. FROST:</p> <p>9 Yeah. You can object.</p> <p>10 MS. O'DELL:</p> <p>11 Object to the form. Misstates the</p> <p>12 record.</p> <p>13 MR. FROST:</p> <p>14 Q Okay.</p> <p>15 A Yeah. I don't remember exactly what</p> <p>16 the -- the resolution was, but I don't think</p> <p>17 everybody quit -- quit using the Chinese talc</p> <p>18 because of the -- the results of that -- of that</p> <p>19 test.</p> <p>20 Q All right.</p> <p>21 A But it doesn't -- to me, it doesn't</p> <p>22 mean there was no asbestos.</p> <p>23 Q Okay. I'm gonna mark JNJ52616.</p> <p>24 (DEPOSITION EXHIBIT NUMBER 26</p>
<p style="text-align: right;">Page 279</p> <p>1 whom, but I think in the end they decided that it</p> <p>2 must have been a mistake.</p> <p>3 Q Okay.</p> <p>4 A They didn't prove it was a mistake, but</p> <p>5 I think that that was the consensus.</p> <p>6 Q That was the ultimate determination?</p> <p>7 Okay.</p> <p>8 A You know, I'm experienced with the</p> <p>9 Chinese, and -- and, in the first place, they</p> <p>10 would never report talc if it would damage their</p> <p>11 competitive market for a product. They would</p> <p>12 have never reported asbestos in talc. So it</p> <p>13 seemed to me kind of odd that they -- that they</p> <p>14 did it in the first place if there was any</p> <p>15 question about it.</p> <p>16 The -- the analytical equipment</p> <p>17 available in China is, you know, some's good and</p> <p>18 some's bad.</p> <p>19 Q Okay. But, again, you agree -- you</p> <p>20 know, your recollection is the ultimate</p> <p>21 determination was that it was a mistake --</p> <p>22 A It kind of --</p> <p>23 Q -- it ---</p> <p>24 MS. O'DELL:</p>	<p style="text-align: right;">Page 281</p> <p>1 WAS MARKED FOR IDENTIFICATION.)</p> <p>2 A For -- you know, let me just give you</p> <p>3 an example. If these people determined asbestos</p> <p>4 with XRD, it's a pretty good chance that it was</p> <p>5 certainly higher than .1. I would guess that</p> <p>6 their equipment wouldn't -- wouldn't get it down</p> <p>7 that low. So they must have -- they must have</p> <p>8 seen something.</p> <p>9 MR. FROST:</p> <p>10 Q But, again, you're only guessing at</p> <p>11 this point; correct?</p> <p>12 A Yeah, I'm guessing.</p> <p>13 MS. O'DELL:</p> <p>14 Object to the form.</p> <p>15 MR. FROST:</p> <p>16 Q All right. Let's look at the document</p> <p>17 that's marked 26. And if you turn to the second</p> <p>18 page under Section 3, "Observation," about</p> <p>19 halfway down the last full paragraph in that --</p> <p>20 that box, it states, "The samples were reprepared</p> <p>21 and analyzed on 2-22-2016. It indicated the</p> <p>22 sample and ID number 3138494 had multiple</p> <p>23 chrysotile particles. Reproduction could not</p> <p>24 duplicate the original results."</p>

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<p>1 I take it that's the section of this</p> <p>2 document you're relying on --</p> <p>3 A Yes.</p> <p>4 Q -- to say that chrysotile was found in</p> <p>5 2016?</p> <p>6 A Yes.</p> <p>7 Q Okay. If you turn over to the next</p> <p>8 page.</p> <p>9 A Can I make a comment about that?</p> <p>10 Q Sure.</p> <p>11 A It's amazing how many reanalyses end up</p> <p>12 with nothing in them. And unless you know how</p> <p>13 they're re- -- resampling and reanalyzing, you're</p> <p>14 really not sure what's going on here. If they</p> <p>15 had a split of the original sample and came up</p> <p>16 with nothing when the first split had something,</p> <p>17 they should have run it a third time.</p> <p>18 Q Okay. Well, let's look over to the --</p> <p>19 to page 4, or the fourth page of this. I don't</p> <p>20 believe it has page numbers.</p> <p>21 A Okay.</p> <p>22 Q About halfway through that paragraph it</p> <p>23 states, "Retest samples were reanalyzed using</p> <p>24 specific talc parameters on the XRF which should</p>	<p>1 I mean, it isn't gonna work.</p> <p>2 MR. FROST:</p> <p>3 Q Okay. You agree that's what the</p> <p>4 document says; right?</p> <p>5 A Yeah. You read it -- you read it the</p> <p>6 way it's written, but...</p> <p>7 Q All right. I'm gonna turn to some more</p> <p>8 general questions now.</p> <p>9 Now, you're generally aware that there</p> <p>10 are various regulations regarding ore reserve</p> <p>11 reporting, models of deposits, mine plans, things</p> <p>12 like that that miners have to abide by; correct?</p> <p>13 MS. O'DELL:</p> <p>14 Object --</p> <p>15 A You said regulations?</p> <p>16 MR. FROST:</p> <p>17 Q Yeah, regulations.</p> <p>18 MS. O'DELL:</p> <p>19 Object to the form.</p> <p>20 MR. FROST:</p> <p>21 Q Or laws and regulations.</p> <p>22 MS. O'DELL:</p> <p>23 Object to the form as vague as to time</p> <p>24 and location.</p>
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<p>1 have been applied when the original samples were</p> <p>2 analyzed."</p> <p>3 A With XRF?</p> <p>4 Q XRF. I'm just reading from the</p> <p>5 document.</p> <p>6 A Uh-huh.</p> <p>7 Q "They were not applied because the</p> <p>8 analyst who typically runs the XRF was out of the</p> <p>9 office and her backup did not apply the</p> <p>10 talc-specific settings."</p> <p>11 Did I read that correctly?</p> <p>12 MS. O'DELL:</p> <p>13 Object to the form.</p> <p>14 A Yeah. I --</p> <p>15 MR. FROST:</p> <p>16 Q Do you agree with me that what they're</p> <p>17 saying there is that the first tested was because</p> <p>18 of poor lab procedure?</p> <p>19 MS. O'DELL:</p> <p>20 Object to the form.</p> <p>21 A I'm not sure that's what it says, but</p> <p>22 I'm -- and I'm puzzled about the use of XRF.</p> <p>23 I -- I would think that they would -- they had to</p> <p>24 have been XRD. You can't do XRF with asbestos.</p>	<p>1 A Yeah. The -- this -- you must be</p> <p>2 talking about state-specific things.</p> <p>3 MR. FROST:</p> <p>4 Q Let me -- the SEC, for example, has</p> <p>5 mining regulations. Are you aware of those?</p> <p>6 A Did you say SEC?</p> <p>7 Q I said SEC.</p> <p>8 A Like Southeastern Conference?</p> <p>9 Q No. Like the Securities Exchange</p> <p>10 Commission.</p> <p>11 A Yeah. I think that in the sense that</p> <p>12 if you're a publicly traded company, there's</p> <p>13 certain data that has to be made available.</p> <p>14 Q Okay. And there are also -- you know,</p> <p>15 there's also JORC? Have you ever heard of JORC,</p> <p>16 the Joint --</p> <p>17 A I've heard of it. I don't know what it</p> <p>18 is.</p> <p>19 Q Okay. And there's other bodies. EPA</p> <p>20 has regulations. State regulators have</p> <p>21 regulations. So you agree there's a body of law</p> <p>22 in regulation, right, that relates to mining?</p> <p>23 A There are --</p> <p>24 MS. O'DELL:</p>

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<p>1 Object to the form. Vague. It's</p> <p>2 unclear what you're asking.</p> <p>3 But if you understand the question --</p> <p>4 but don't speculate as to what it means.</p> <p>5 A I -- I -- I think I understand it.</p> <p>6 The states, when you're gonna open up a</p> <p>7 mine, require certain information to be presented</p> <p>8 in support of, really, your reclamation plan.</p> <p>9 But in order to present a good reclamation plan,</p> <p>10 you have to give them information about the</p> <p>11 mining, the length of the mining operation, its</p> <p>12 life, and some details about what you're doing.</p> <p>13 So each state can have slightly varying</p> <p>14 requirements for that. But the whole idea is</p> <p>15 they want your money. They want you to put up a</p> <p>16 reclamation bond. And in order to figure out</p> <p>17 exactly how hard to squeeze, they need some</p> <p>18 information.</p> <p>19 MR. FROST:</p> <p>20 Q Okay. I'll ask it a different way</p> <p>21 because I'm not just focusing in on reclamation.</p> <p>22 But are you aware that there are</p> <p>23 regulations and standards out there that mines</p> <p>24 have to follow regarding things like, you know,</p>	<p>1 would, you know, cover, for example, the Windsor</p> <p>2 Minerals operations in Vermont?</p> <p>3 A I don't see how it would be that</p> <p>4 different from anything else, any other</p> <p>5 operation.</p> <p>6 Q Okay. But, sitting here today, can you</p> <p>7 tell me that -- what the regulations are that</p> <p>8 they're required to follow?</p> <p>9 A Well --</p> <p>10 MS. O'DELL:</p> <p>11 Object- -- objection as to 1965 to</p> <p>12 2000 --</p> <p>13 MR. FROST:</p> <p>14 Sure. I'm just asking generally if</p> <p>15 he's aware of any of the -- the regulations that</p> <p>16 are required, and then we can sort of focus in</p> <p>17 from there.</p> <p>18 MS. O'DELL:</p> <p>19 Well, you asked a question that relates</p> <p>20 to today at Windsor Minerals. And I don't think</p> <p>21 Windsor Minerals is operating --</p> <p>22 MR. FROST:</p> <p>23 It -- it doesn't --</p> <p>24 MS. O'DELL:</p>
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<p>1 for example, model -- you know, how to model a --</p> <p>2 how -- how to model a deposit, mine plan, things</p> <p>3 of that nature?</p> <p>4 MS. O'DELL:</p> <p>5 Object to the form.</p> <p>6 A I have never been required to turn in a</p> <p>7 mine plan to a regulatory agency. But what I</p> <p>8 have had to turn in were the data necessary for</p> <p>9 them to issue water permits and air permits.</p> <p>10 And -- and those require some modeling.</p> <p>11 I have an interest in three operating</p> <p>12 mines right now. We've never been asked to</p> <p>13 submit our detailed mining plans.</p> <p>14 MR. FROST:</p> <p>15 Q Okay. So you're getting very focused</p> <p>16 in on -- on examples. So I guess is it fair to</p> <p>17 say you're not an expert in nor are you</p> <p>18 particularly familiar with, like, the JORC</p> <p>19 specifications that require talc mines?</p> <p>20 A Like I said, I've heard of JORC and</p> <p>21 I -- but I don't know anything about it.</p> <p>22 Q Okay. And you also couldn't tell me,</p> <p>23 you know, other than a couple examples, you're</p> <p>24 not an expert in the regulatory requirements that</p>	<p>1 -- in Virginia -- Virginia -- Vermont</p> <p>2 today.</p> <p>3 MR. FROST:</p> <p>4 Q I'm not limiting my question today.</p> <p>5 I'm just saying in general.</p> <p>6 So I'll put it this way. I think we</p> <p>7 established at the beginning you're not a</p> <p>8 regulatory expert, nor do you hold yourself out</p> <p>9 to be a regulatory expert. Correct?</p> <p>10 MS. O'DELL:</p> <p>11 Object to the form.</p> <p>12 A I know a lot about it.</p> <p>13 MR. FROST:</p> <p>14 Q Okay.</p> <p>15 A I don't know that I'm an expert. But</p> <p>16 I've had to comply with regulatory rules and</p> <p>17 regulations. And if I was going to go and get a</p> <p>18 mine permit right now --</p> <p>19 Let's just use Alabama, because I know</p> <p>20 enough about Alabama.</p> <p>21 -- there's three permits required in</p> <p>22 Alabama. There is an air permit. You've got to</p> <p>23 prove that the operation that you're gonna open</p> <p>24 up is not going to exceed a certain level of</p>

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<p style="text-align: right;">Page 290</p> <p>1 particulate matter in the air, food, your 2 operation. 3 If you're gonna discharge water, you've 4 got to have a water permit. If you -- 5 You have to have what we call bugs and 6 bunnies study. You've got to prove there's no 7 endangered species. 8 You've got to have an anthropological 9 study that proves that you're not impacting a 10 site of, you know, Indians. 11 And then the final thing is you've got 12 to get a state mining permit. And in Alabama, 13 the state mining permit is virtually a rubber 14 stamp. It may not be in other states. But in 15 Alabama, that's -- that's what you've got to do. 16 And, I mean, I've done that three or four times 17 in the last ten years. 18 Q All right. 19 A And, so, I would assume -- I would 20 assume -- and, of course, there is -- once you 21 say you're gonna -- gonna operate, you need to 22 post your reclamation bond. And that then 23 requires you to present certain information. In 24 our -- in Alabama, it's to a State Department.</p>	<p style="text-align: right;">Page 292</p> <p>1 Q No. Its yearly ongoing operations. 2 A Yeah. Okay. This is all totally 3 different, then. Yeah. That's when MSHA gets 4 involved with you. 5 Q Okay. And MSHA's one, and there are 6 lots of regulatory agencies; correct? 7 A Yeah. Well, around here, MSHA's the 8 one that you fear. Because when they show up, 9 you're gonna get fined. I mean, they pay for 10 their visit here to your property. 11 And, so, there's a list of things that 12 they look at that's as long as your arm. And if 13 they can't find one of them out of compliance, 14 they'll generate one. 15 Q Okay. So other than the MSHA 16 requirements, which are health and safety, can 17 you tell me any of the other -- 18 You know, I've mentioned JORC. It 19 seems like you're not familiar with the JORC 20 requirements. Correct? 21 A If I am, it's under another name or 22 another agency applies their -- whatever their 23 regs are. 24 Q Okay. But, sitting here, you know, you</p>
<p style="text-align: right;">Page 291</p> <p>1 Q Okay. I'll ask it a different way. 2 Sitting here today, you can't tell me 3 what rules, laws, and regulations specifically 4 oversaw and that Windsor Myer -- Windsor Minerals 5 was required to abide by from the period of 1965 6 to the late 1990s when they were supplying talc 7 to Johnson &amp; Johnson. Is that a fair statement? 8 A In the late 1990s, I think I gave you 9 some just now that they would have had to comply 10 with. 11 Q Okay. I'm not talking about some. I'm 12 talking about can you tell me the regulatory 13 requirements that Windsor Minerals would have 14 been required to follow with respect to their 15 mine and their mining practices? 16 MS. O'DELL: 17 Object to the form. 18 A Is this once the mine is in operation? 19 MR. FROST: 20 Q When the mine is operating. 21 A Oh, okay. I'm sorry. I thought you 22 were talking -- 23 Q No. I'm talking about -- 24 A -- about trying to open up the mine.</p>	<p style="text-align: right;">Page 293</p> <p>1 certainly can't say -- 2 For example, we don't need to go -- 3 A lot of the mine reports from -- from 4 the various miners talk about, you know, 5 complying with JORC specifications. You couldn't 6 tell me what those specifications -- 7 A What does JORC stand for? 8 Q Joint Ore Reserve Commission. 9 A No. 10 Q Okay. And you certainly don't list any 11 of the laws, regulations, and requirements within 12 your report, right, that -- 13 A No. 14 Q -- mining companies -- 15 A I bet you there's some mining companies 16 out west that would love to know about this. 17 Q Okay. But, again, focusing on your 18 report, you certainly don't list any of the laws, 19 regulations, requirements. 20 A No. 21 Q And you're not intending to offer any 22 opinions -- 23 A No. 24 Q -- about compliance with laws,</p>

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<p style="text-align: right;">Page 294</p> <p>1 regulations, and requirements in this case.</p> <p>2 A No. But you're gonna make me go and</p> <p>3 look some stuff up.</p> <p>4 Q Sure.</p> <p>5 And would you agree with me that</p> <p>6 compliance with laws, requirements, regulations</p> <p>7 is one of the things --</p> <p>8 Strike that. I'll ask it differently.</p> <p>9 You talk quite a bit in your report</p> <p>10 about sampling methodologies. And do you agree</p> <p>11 with me there are probably thousands of papers</p> <p>12 that have been published about sampling</p> <p>13 methodologies, you know, how to determine whether</p> <p>14 or not a sample is representative of a greater</p> <p>15 group of ore and things like that; right?</p> <p>16 MS. O'DELL:</p> <p>17 Object to the form.</p> <p>18 A I'm sure there's --</p> <p>19 Pardon me.</p> <p>20 I'm sure there -- I don't know that</p> <p>21 there's thousands, but I know there's a lot.</p> <p>22 MR. FROST:</p> <p>23 Q Okay. And there are a bunch of</p> <p>24 competing theories or different theories, anyway,</p>	<p style="text-align: right;">Page 296</p> <p>1 MS. O'DELL:</p> <p>2 Object to the form.</p> <p>3 A I have -- I have not. It's -- it's</p> <p>4 insufficient to -- to work with.</p> <p>5 MR. FROST:</p> <p>6 Q And, again, you know, you've -- you've</p> <p>7 run no analysis to determine --</p> <p>8 Well, we'll turn to the specifics when</p> <p>9 we get to them.</p> <p>10 But don't you agree that it's important</p> <p>11 as a scientist, when you're making a</p> <p>12 determination that something is complete or not,</p> <p>13 that it's based on the theories of peer-reviewed</p> <p>14 literature?</p> <p>15 MS. O'DELL:</p> <p>16 Object to the form.</p> <p>17 A Is complete or not?</p> <p>18 MR. FROST:</p> <p>19 Q Yes. Like here, such as -- you know,</p> <p>20 your overall opinion that the sampling, for</p> <p>21 example, done by the mining company is a</p> <p>22 representative. As a scientist, don't you agree</p> <p>23 with me that it's important to base those</p> <p>24 opinions on empirical data?</p>
<p style="text-align: right;">Page 295</p> <p>1 about how to do sampling, how to calculate,</p> <p>2 things of that nature; correct?</p> <p>3 A I don't know how competing they are. I</p> <p>4 know that they evolve with time. If you took a</p> <p>5 good paper that tried to hammer all this out that</p> <p>6 was published in 2015 and compared it to one that</p> <p>7 was written in 1985 --</p> <p>8 Q There'd be some differences.</p> <p>9 A Right. There might be competitive</p> <p>10 ideas in there.</p> <p>11 Q But you do agree with me sort of the</p> <p>12 underlying principle under most of the different</p> <p>13 theories is that you have to use geostatistics to</p> <p>14 determine whether or not what you're sampling is</p> <p>15 itself representative of the ore body; correct?</p> <p>16 MS. O'DELL:</p> <p>17 Object to the form.</p> <p>18 A You -- yeah. You would hope that that</p> <p>19 would happen.</p> <p>20 MR. FROST:</p> <p>21 Q Okay. And am I also correct that you</p> <p>22 have not done any geostatistical analysis of any</p> <p>23 of the sampling data from either</p> <p>24 Johnson &amp; Johnson or Imerys in this case?</p>	<p style="text-align: right;">Page 297</p> <p>1 MS. O'DELL:</p> <p>2 Object to the form.</p> <p>3 A It needs to be based on data. It sure</p> <p>4 does. I mean, and I think I've based my opinion</p> <p>5 on data and the lack thereof.</p> <p>6 MR. FROST:</p> <p>7 Q But you didn't run or attempt to run</p> <p>8 any type of statistical analysis to determine</p> <p>9 whether or not the sample was truly</p> <p>10 representative, the sample was --</p> <p>11 MS. O'DELL:</p> <p>12 Object to the form.</p> <p>13 A No. And my point was that there's --</p> <p>14 there's -- they're missing -- there are intervals</p> <p>15 in time where there's missing data.</p> <p>16 MR. FROST:</p> <p>17 Q Okay.</p> <p>18 A When you have that, you can't do much.</p> <p>19 Q And you also agree with me, then, that</p> <p>20 your opinions regarding the adequacy of the</p> <p>21 sampling is based on an incomplete data set?</p> <p>22 MS. O'DELL:</p> <p>23 Object to the form.</p> <p>24 A It's -- it's worse than that. The</p>

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<p style="text-align: right;">Page 298</p> <p>1 sampling mechanisms are not described. There'll 2 be a place where it'll describe or will mention 3 mechanical sampling, but it doesn't say when the 4 mechanical sampler was put in place to take the 5 place of, say, a grab sample. Doesn't say what 6 type of mechanical sampler it was. Is it 7 something that's sampling continuously or once an 8 hour an arm sweeps across a conveyor belt and 9 grabs a sample? There are all kind of samplers. 10 And when you've got some- -- something 11 as critical as -- as your cosmetic talc that 12 really requires, you know, careful attention, I 13 would like to have seen exactly where in the 14 various process this sampling was taking place. 15 And there -- there are references to 16 sampling at the mine itself, and we can't -- we 17 haven't seen the data. And yet there should be 18 hundreds and hundreds and hundreds of analyses of 19 drill hole cuttings that are being put in as 20 blast holes. You know, I'm sure that if you're 21 gonna do selective mining, you don't use a drill 22 hole spacing that's 10 feet on a -- on a side. 23 That's what we use in the quarry. And we get 24 huge amounts of rock.</p>	<p style="text-align: right;">Page 300</p> <p>1 well know. 2 A They have not suggested to me that 3 they've withheld anything. Whenever I've asked 4 for something, if they got it, they give it to 5 me. If they don't, I never see it. 6 MR. FROST: 7 Q But you're guessing that they're giving 8 you everything. You have no way of telling me 9 whether or not -- 10 A I don't know -- 11 Q -- they are -- 12 MS. O'DELL: 13 Excuse me. Are you finished with your 14 question? 15 MR. FROST: 16 Yeah. I'm finished. 17 MS. O'DELL: 18 Object to the form. 19 You may answer. 20 A I don't know that that's a guess. 21 MR. FROST: 22 Q Well, you certainly have done nothing 23 independently, nor have you been able to, to 24 verify that; correct?</p>
<p style="text-align: right;">Page 299</p> <p>1 If I was gonna be selectively mining 2 talc, I would have smaller faces, tighter holes. 3 I would be -- I wouldn't be having more than a 4 few thousand tons per blast. But I would know 5 exactly what I was fixing to blast and -- and 6 that data, there are documents to indicate that 7 the data sufficient to move in that direction 8 exists. But we never got it. 9 Q Okay. 10 A We've asked for it. 11 Q And that's -- that's very important. 12 Because one I think we've already established, 13 you have no way of telling whether or not you 14 actually have all the documents that are 15 relative -- are relevant to these points; 16 correct? 17 MS. O'DELL: 18 Object. 19 MR. FROST: 20 Q You have only what plaintiffs' counsel 21 has deemed to give you. 22 MS. O'DELL: 23 Object to the form. Based on what was 24 disclosed and produced in the litigation, as you</p>	<p style="text-align: right;">Page 301</p> <p>1 A I've tried to break into their offices 2 at night and see -- see if they had a big pile of 3 data they should have sent to me. 4 Q Well, did you ever ask if you could 5 have access to the full database -- 6 A I'm -- 7 Q -- of documents? 8 I'm not -- I know you're being 9 facetious. 10 A Yeah. 11 Q But have you ever asked to have full 12 access to the document database of the 13 documents -- 14 A If they're -- 15 Q -- provided by Johnson &amp; Johnson and 16 Imerys? 17 MS. O'DELL: 18 Object. 19 A Pardon me. 20 No, certainly not, because of the 21 number involved. What would I do with 800,000 22 documents? 23 MR. FROST: 24 Q And you've never run any searches</p>



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<p style="text-align: right;">Page 302</p> <p>1 yourself against the database?</p> <p>2 A No.</p> <p>3 Q So, again, you're just relying on what</p> <p>4 plaintiffs have given to you.</p> <p>5 MS. O'DELL:</p> <p>6 Object to the form.</p> <p>7 A I have absolutely no reason to doubt</p> <p>8 the honesty of Miss O'Dell and company.</p> <p>9 MR. FROST:</p> <p>10 Q Well, I can tell you you don't have the</p> <p>11 complete copy -- complete compilation of all of</p> <p>12 the --</p> <p>13 A Well, one might ask why not since we've</p> <p>14 asked for them over and over again.</p> <p>15 Q I'm talking about the documents you</p> <p>16 have, sir. I can tell you there are testing</p> <p>17 results, for example, that aren't provided --</p> <p>18 A Well --</p> <p>19 MS. O'DELL:</p> <p>20 Object to --</p> <p>21 MR. FROST:</p> <p>22 Q We'll go over some of them later.</p> <p>23 MS. O'DELL:</p> <p>24 Object to the form.</p>	<p style="text-align: right;">Page 304</p> <p>1 MS. O'DELL:</p> <p>2 Objection to form.</p> <p>3 A I'm not saying that at all. I am not</p> <p>4 saying that. I'm saying that we have asked for</p> <p>5 all of the data. And if what I've been given is</p> <p>6 all you've got, then fine. That's fine with me.</p> <p>7 But I'm not saying that I've got -- that there's</p> <p>8 a data set out there that you guys have held back</p> <p>9 and not bothered to send in. I'm not gonna say</p> <p>10 that.</p> <p>11 MS. O'DELL:</p> <p>12 We've been going about an hour. Let's</p> <p>13 take a short break.</p> <p>14 MR. FROST:</p> <p>15 That's fine.</p> <p>16 VIDEOGRAPHER:</p> <p>17 Going off the record. The time is 2:44</p> <p>18 p.m.</p> <p>19 (OFF THE RECORD.)</p> <p>20 VIDEOGRAPHER:</p> <p>21 We're back on the record. The time is</p> <p>22 3:01 p.m.</p> <p>23 MR. FROST:</p> <p>24 Q I've sort of come up with another</p>
<p style="text-align: right;">Page 303</p> <p>1 MR. FROST:</p> <p>2 Q And we'll go over some of those later.</p> <p>3 But, again --</p> <p>4 So what we heard a lot of is you're not</p> <p>5 saying I've reviewed all the documents and I know</p> <p>6 they're not using the correct equipment. It</p> <p>7 sounds like your opinion more is "I can't tell</p> <p>8 what they're using and there's incomplete data</p> <p>9 here," and that's sort of the basis for your</p> <p>10 opinion. Is that -- is that a fair observation?</p> <p>11 MS. O'DELL:</p> <p>12 Object to the form.</p> <p>13 A Not -- not really. I mean, it's part</p> <p>14 of it. It's part of what I see, and the total</p> <p>15 document set that I've got is a suggestion that</p> <p>16 there's sampling going on. But even -- even if</p> <p>17 the sampling is taking place, we don't have</p> <p>18 analytical results for samples that should have</p> <p>19 been taken. And, so, it's very difficult to use</p> <p>20 anything other than what we've got to draw</p> <p>21 conclusions from.</p> <p>22 MR. FROST:</p> <p>23 Q Okay. You agree with me you're drawing</p> <p>24 conclusions based on an incomplete record.</p>	<p style="text-align: right;">Page 305</p> <p>1 general question I forgot to ask. But would you</p> <p>2 agree with me that compliance with legal</p> <p>3 standards is an important consideration in</p> <p>4 determining whether or not a mine is being</p> <p>5 properly operated?</p> <p>6 A Yes.</p> <p>7 Q All right. Turn to page 37 of your</p> <p>8 report.</p> <p>9 A Okay.</p> <p>10 Q Okay. The second full sentence on that</p> <p>11 page, it says, "Ore sampling techniques do not</p> <p>12 suggest representativeness and were questioned in</p> <p>13 a 2009 Intertek audit." And you cite Imerys</p> <p>14 031712.</p> <p>15 A I think that's with respect to Chinese</p> <p>16 talc.</p> <p>17 Q Okay.</p> <p>18 A Okay.</p> <p>19 Q Let's -- let's take a look at that</p> <p>20 document real quick.</p> <p>21 MS. O'DELL:</p> <p>22 031712?</p> <p>23 MR. FROST:</p> <p>24 031712, yes.</p>

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<p>1 What number are we at?</p> <p>2 THE COURT REPORTER:</p> <p>3 27.</p> <p>4 (DEPOSITION EXHIBIT NUMBER 27</p> <p>5 WAS MARKED FOR IDENTIFICATION.)</p> <p>6 MR. FROST:</p> <p>7 Q I'll call your attention to page 5.</p> <p>8 A Okay.</p> <p>9 Q The first audit area, I take it that's</p> <p>10 what you're referencing --</p> <p>11 A Yes.</p> <p>12 Q -- in the sample.</p> <p>13 A Uh-huh.</p> <p>14 Q Okay. And, again, you'd agree with me</p> <p>15 that Intertek rates this audit area as minor;</p> <p>16 correct?</p> <p>17 A I'm looking for a level 5 on here. I'm</p> <p>18 not seeing -- I'm not seeing the level.</p> <p>19 Q It's under the box that goes audit</p> <p>20 area, finding, recommendation, and then rating.</p> <p>21 Is -- is the bottom.</p> <p>22 A Oh, the rating. I see it. Yeah.</p> <p>23 Q Then it says "minor."</p> <p>24 A Right. Right. Sure.</p>	<p>1 A That's true.</p> <p>2 Q Okay. We'll turn to 631362.</p> <p>3 (DEPOSITION EXHIBIT NUMBER 28</p> <p>4 WAS MARKED FOR IDENTIFICATION.)</p> <p>5 MR. FROST:</p> <p>6 Q And I'll direct your attention to page</p> <p>7 364, which is the callout from the report.</p> <p>8 MS. O'DELL:</p> <p>9 Bates number 364 at the end?</p> <p>10 MR. FROST:</p> <p>11 That's correct. So it's 631364.</p> <p>12 A Got it.</p> <p>13 MR. FROST:</p> <p>14 Q Okay. And if you look down at number</p> <p>15 14 --</p> <p>16 Well, first off, do you agree that this</p> <p>17 is a Certificate of Analysis from the mining</p> <p>18 company, the Chinese mining company?</p> <p>19 A Yes.</p> <p>20 Q Okay. And if you look down at 14, the</p> <p>21 document's been translated and it says: In the</p> <p>22 absence of asbestos, China SFDA method, none</p> <p>23 detected by X-Ray Diffraction, none detected as</p> <p>24 fibrous amphibole by Polarized Light Microscopy,</p>
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<p>1 Q Okay.</p> <p>2 A Excuse me. I was looking for the</p> <p>3 letter -- the number 5.</p> <p>4 Q Oh. The number. Oh, okay. Sorry. It</p> <p>5 was page 5. I apologize if I caused confusion.</p> <p>6 A Well, 5 is the rating for minor.</p> <p>7 That's their minor rating.</p> <p>8 Q Oh, I see.</p> <p>9 So you'd agree with me that whatever</p> <p>10 concerns they may have addressed, they rated this</p> <p>11 as a minor concern?</p> <p>12 A To them?</p> <p>13 Q Yes.</p> <p>14 A Yes.</p> <p>15 Q Okay. Further down on page 37 of your</p> <p>16 report, next paragraph, sort of in the middle,</p> <p>17 you note that "As recently as 2016, Chinese</p> <p>18 testing for asbestos is implied in a Guilin</p> <p>19 Guiguang talc development company document,</p> <p>20 JNJ631362 at 364."</p> <p>21 And then, further down, the next</p> <p>22 sentence, you wrote, "I have not seen any data</p> <p>23 confirming this."</p> <p>24 Did I read that correctly?</p>	<p>1 performed only if detected by X-ray diffraction,</p> <p>2 et cetera.</p> <p>3 So do you agree with me that this is</p> <p>4 the mine owner certifying that they've tested the</p> <p>5 talc and it's come up as asbestos-free?</p> <p>6 MS. O'DELL:</p> <p>7 Object to the form.</p> <p>8 A It does not say that. It says they</p> <p>9 were unable to detect it with those techniques.</p> <p>10 And the limit of detection's like .1. So that's</p> <p>11 not what this says.</p> <p>12 MR. FROST:</p> <p>13 Q Well, it says "Absence of asbestos,</p> <p>14 none detected."</p> <p>15 Do you agree with me there?</p> <p>16 A That is -- that is the problem. They</p> <p>17 use this word "absence of asbestos" in their --</p> <p>18 their Certificates of Analyses, and yet the</p> <p>19 technique they're using can't justify that.</p> <p>20 Q So the reason you use the word</p> <p>21 "implied" is because they're using a nondetect</p> <p>22 standard as opposed to saying what? Non -- no</p> <p>23 asbestos?</p> <p>24 A Correct.</p>

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<p style="text-align: right;">Page 310</p> <p>1 Q But, again, they're testing it by, you 2 know, China SFDA method; correct? 3 MS. O'DELL: 4 Object to the form. 5 A Their FDA method isn't necessarily 6 consistent with what J&amp;J would like. 7 MR. FROST: 8 Q Okay. But, again, we have testing 9 here. They're doing it by x-ray diffraction, and 10 then polarized light microscopy is what the -- 11 the notation says. 12 A Right. 13 Q Correct? 14 A Correct. 15 Q And you have no reason to doubt that -- 16 or to say that the Chinese mine owner is lying on 17 their Certificate of Analysis; right? 18 MS. O'DELL: 19 Object to the form. 20 A When he says "free from asbestos," he 21 may be lying. 22 MR. FROST: 23 Q And why -- 24 A I mean, they do it all the time.</p>	<p style="text-align: right;">Page 312</p> <p>1 not gonna know. 2 And, so, it's improper for them to say 3 that there's no asbestos there. They should say 4 no asbestos was detected. It's very simple. 5 MR. FROST: 6 Q Again, isn't that what they're saying, 7 absence of asbestos showing the Chinese method 8 and saying none detected? 9 A No. 10 Q I don't -- I don't understand. The 11 words they're using on this paper are exactly 12 what you're explaining to me. 13 A No, they're not. 14 Q I'm confused. All right. So it says 15 absence of asbestos. 16 A Stop. 17 Q Right? 18 A Stop right there. Absence of asbestos 19 means there is none there. Correct? 20 Q Well, that's -- under the test items, 21 that's why -- 22 So if you look up, test items, it says, 23 "Test, absence of asbestos." Right? Then it 24 says, "Test method: China, SFDA method." And</p>
<p style="text-align: right;">Page 311</p> <p>1 Believe me. I mean, that's not unusual. But -- 2 but I'm not accusing them of lying. I'm saying 3 that there is a confusion of terminology is all. 4 Q Okay. And you believe the confusion of 5 the terminology is that absence of asbestos, none 6 detected -- 7 A They don't mean the same thing. 8 Q -- implies -- 9 A They do not mean the same thing. 10 Q Okay. And you don't believe that they 11 are certifying here that, pursuant to the Chinese 12 FSDA method, that this is, you know, certified as 13 absent of asbestos? 14 A If they're certi- -- 15 MS. O'DELL: 16 Object to the form. 17 A If they're certifying it as 18 asbestos-free, then if I were Johnson &amp; Johnson, 19 I wouldn't -- I wouldn't be accepting that, 20 because we've known all along that .1 is the 21 lower detection limit using that -- that 22 technique. So you could have .05 percent 23 chrysotile in the sample, and their nondetect 24 wouldn't ever say that. I mean, they just are</p>	<p style="text-align: right;">Page 313</p> <p>1 then, under acceptance of criteria, it says "none 2 detected." 3 MS. O'DELL: 4 Object to the form. 5 A That does not mean absence. I mean, 6 the two do not mean the same thing. That's -- 7 that's my point. 8 MR. FROST: 9 Q So -- 10 A When you -- 11 Listen, this isn't that difficult. 12 When you say that you can't detect something, it 13 doesn't mean it isn't there. It may be there but 14 in a level lower than your detection limit. So 15 when they're using those two techniques, there is 16 a lower detection limit that -- that is really 17 inadequate, I think, for Johnson &amp; Johnson's 18 purposes. Because you can't say that something 19 is absent if you can only detect down to a tenth 20 of a percent. And that's what's going on here. 21 Q Okay. And that's -- 22 A This is very simple. 23 Q And that's just your opinion; right? 24 A No. No. That's not my opinion, no,</p>

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<p style="text-align: right;">Page 314</p> <p>1 sir.</p> <p>2 Q Let me ask my question. That's just</p> <p>3 your opinion, but we've already established the</p> <p>4 FDA J4-1 method that they're required to test</p> <p>5 requires XRD; correct?</p> <p>6 A Absolutely.</p> <p>7 Q And we've already established that</p> <p>8 you're not an expert and can sit here and say</p> <p>9 that asbestos below a level of .1 percent is</p> <p>10 capable of causing human disease; correct?</p> <p>11 MS. O'DELL:</p> <p>12 Object to the form.</p> <p>13 A Human disease I'm not an expert in.</p> <p>14 MR. FROST:</p> <p>15 Q Yeah. Exactly.</p> <p>16 A So that has nothing to do with this.</p> <p>17 Q And, again, they're saying free --</p> <p>18 they're not saying there's no asbestos in here.</p> <p>19 They're saying --</p> <p>20 A Yes, they are.</p> <p>21 Q No.</p> <p>22 A They say an absence of asbestos.</p> <p>23 Q That's the test name, if you look at</p> <p>24 the column. They're saying none detected.</p>	<p style="text-align: right;">Page 316</p> <p>1 Q That's the test. You agree with me</p> <p>2 that's the test, and then the results are</p> <p>3 truthfully reporting as you're requiring, because</p> <p>4 it says "none detected."</p> <p>5 A Correct.</p> <p>6 MS. O'DELL:</p> <p>7 Objection. Objection to form.</p> <p>8 Just give me a moment.</p> <p>9 MR. FROST:</p> <p>10 Q And, again, and you're saying that this</p> <p>11 is only an implication that there's not asbestos</p> <p>12 in this product because you disagree completely</p> <p>13 with the --</p> <p>14 A I'm not --</p> <p>15 Q -- required testing method.</p> <p>16 MS. O'DELL:</p> <p>17 Let him finish, please.</p> <p>18 THE WITNESS:</p> <p>19 Sure. I'm sorry.</p> <p>20 MS. O'DELL:</p> <p>21 And then let me do the object- --</p> <p>22 Object to the form.</p> <p>23 A I don't think that there's an</p> <p>24 implication here at all. I think that this is</p>
<p style="text-align: right;">Page 315</p> <p>1 A If they say "none detected," that's</p> <p>2 fine.</p> <p>3 Q And that's -- isn't that exactly what</p> <p>4 it says here?</p> <p>5 A It doesn't mean asbestos-free. So if</p> <p>6 they're putting this in the asbestos-free column</p> <p>7 and they're using that statement to show that</p> <p>8 it's asbestos-free, that's not right.</p> <p>9 Q So, again, where in this document does</p> <p>10 it say asbestos-free?</p> <p>11 A I thought that you said that's what the</p> <p>12 column was labeled.</p> <p>13 Q The test is absence of asbestos.</p> <p>14 A That's asbestos-free.</p> <p>15 Q And the -- no. It says absence of</p> <p>16 asbestos. You are changing the words. Look at</p> <p>17 the document.</p> <p>18 MS. O'DELL:</p> <p>19 Object to the form.</p> <p>20 MR. FROST:</p> <p>21 Q It says absence of asbestos.</p> <p>22 A I'm not changing the words.</p> <p>23 Q Well, where does it say asbestos-free?</p> <p>24 A Isn't "absence of" mean free of?</p>	<p style="text-align: right;">Page 317</p> <p>1 the crux of a large issue, and that is that J&amp;J</p> <p>2 would like for their talc product to be</p> <p>3 asbestos-free. And that's great.</p> <p>4 But to say something is not detected</p> <p>5 when your lower detection limit is actually quite</p> <p>6 high, that doesn't show that something is absent</p> <p>7 from your product. It doesn't show that it's</p> <p>8 asbestos-free.</p> <p>9 And "absent of" and "free of," if</p> <p>10 you -- I mean, we can get out Webster's</p> <p>11 dictionary if you want to and argue this. But I</p> <p>12 would say that -- that most people would say that</p> <p>13 those two things mean the same.</p> <p>14 MR. FROST:</p> <p>15 Q Okay. And, again, you'd agree with me</p> <p>16 that Johnson &amp; Johnson requires that a particular</p> <p>17 test be run on its talc; correct?</p> <p>18 A I think so.</p> <p>19 MS. O'DELL:</p> <p>20 Object to the form.</p> <p>21 MR. FROST:</p> <p>22 Q Okay. And --</p> <p>23 MS. O'DELL:</p> <p>24 As to asbestos or as to what?</p>

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<p style="text-align: right;">Page 318</p> <p>1 MR. FROST:</p> <p>2 As to asbestos. Talking about</p> <p>3 asbestos.</p> <p>4 MS. O'DELL:</p> <p>5 Over time or --</p> <p>6 MR. FROST:</p> <p>7 We're talking -- you know, right now</p> <p>8 we're talking J4-1, right, that testing method,</p> <p>9 the XRD testing method.</p> <p>10 Q You agree that that's the testing</p> <p>11 method that Johnson &amp; Johnson and Imerys used;</p> <p>12 correct?</p> <p>13 A That's right.</p> <p>14 Q You also agree that that's the method</p> <p>15 that the FDA, you know, requires that talcum</p> <p>16 powder be tested for asbestos; correct?</p> <p>17 MS. O'DELL:</p> <p>18 Object to the form.</p> <p>19 A I agree with all of that --</p> <p>20 MR. FROST:</p> <p>21 Q Yeah. That's what I'm saying.</p> <p>22 A -- except that that doesn't prove that</p> <p>23 a product is free of asbestos. It only proves</p> <p>24 that --</p>	<p style="text-align: right;">Page 320</p> <p>1 problem.</p> <p>2 Q Okay. Don't you agree with me that</p> <p>3 every method of testing has a lower limit of</p> <p>4 detection?</p> <p>5 MS. O'DELL:</p> <p>6 Object to the form.</p> <p>7 A That's -- that's tough. But I think,</p> <p>8 in general, that's probably a pretty good</p> <p>9 statement.</p> <p>10 MR. FROST:</p> <p>11 Q Okay.</p> <p>12 A I think the day is gonna come when --</p> <p>13 when there will be equipment that's good enough</p> <p>14 to say, you know, under any circumstances,</p> <p>15 there's none there.</p> <p>16 Q Okay.</p> <p>17 A But I don't think we're quite there</p> <p>18 yet.</p> <p>19 Q Okay. And, going to your scenario, if</p> <p>20 you told your student to go test that sample</p> <p>21 using XRD --</p> <p>22 A Right.</p> <p>23 Q -- and he tested it and came back and</p> <p>24 said no asbestos --</p>
<p style="text-align: right;">Page 319</p> <p>1 Q I'm not asking that, sir.</p> <p>2 A Well, but that's what it said over and</p> <p>3 over again in the COAs is "free of." And they</p> <p>4 need to say it's free of down to a detection</p> <p>5 level of .1 percent.</p> <p>6 Q So your opinion is you just don't like</p> <p>7 the terminology they're using, but you have no</p> <p>8 opinion that anything below a .1 would cause</p> <p>9 disease or be dangerous to human health?</p> <p>10 MS. O'DELL:</p> <p>11 Object to the form.</p> <p>12 A No. You keep adding human health in</p> <p>13 there. I'm not -- I'm not trying to opine about</p> <p>14 human health. I'm just saying that if I had a</p> <p>15 student and I handed him a sample and I said "Is</p> <p>16 there any asbestos in this or not," and he goes</p> <p>17 to the x-ray machine and comes back and says,</p> <p>18 "No, I couldn't find any by x-ray," I'll probably</p> <p>19 give him an F.</p> <p>20 Q Okay.</p> <p>21 A Because it doesn't mean that there's no</p> <p>22 asbestos in that sample. It means that he</p> <p>23 couldn't detect it down to the lower detection</p> <p>24 limit of that machine. And -- and therein is a</p>	<p style="text-align: right;">Page 321</p> <p>1 A Right.</p> <p>2 Q -- you wouldn't fail him for that</p> <p>3 because he was following the test; correct?</p> <p>4 MS. O'DELL:</p> <p>5 Object to the form.</p> <p>6 A No. I would. He should come back and</p> <p>7 say, "Why did you tell me to go to the x-ray</p> <p>8 machine to do this?"</p> <p>9 MR. FROST:</p> <p>10 Q So even though you told him to go --</p> <p>11 A Yeah.</p> <p>12 Q So if you told somebody to go test</p> <p>13 something using this test method, you would still</p> <p>14 fail them when they came back and said "I used</p> <p>15 the test method you told me and it" --</p> <p>16 A Well, it depends on what he comes back</p> <p>17 with. If he comes back and says, you know, "I</p> <p>18 know that there's a lower limit on the ability of</p> <p>19 this equipment to detect asbestos and, based on</p> <p>20 that, I can't find any in here," he gets an A.</p> <p>21 That's an A.</p> <p>22 If he comes back and he says, "Oh, I</p> <p>23 went up there and kicked the machine two or three</p> <p>24 times, you know, it wouldn't spit out an asbestos</p>



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<p style="text-align: right;">Page 322</p> <p>1 determination, so I don't think there is any,"</p> <p>2 well, I'd be irritated. That's not -- you know,</p> <p>3 that's not a good -- a good answer to come back</p> <p>4 to the teacher.</p> <p>5 Q Okay. And you'd agree with me that the</p> <p>6 FDA knows that .1 percent is the lower detection</p> <p>7 limit on XRD? I mean, everybody sort of knows</p> <p>8 that.</p> <p>9 A I think so, sure.</p> <p>10 Q Okay. And still that's the test method</p> <p>11 that they've required; correct?</p> <p>12 MS. O'DELL:</p> <p>13 Object to the form. Misstates the law.</p> <p>14 A As far as I know today, it -- it is. I</p> <p>15 know that there are modifications being</p> <p>16 considered for sure.</p> <p>17 MR. FROST:</p> <p>18 Q Okay. But, as of today, you agree with</p> <p>19 me that that's --</p> <p>20 A I think so.</p> <p>21 MS. O'DELL:</p> <p>22 Object to the form.</p> <p>23 MR. FROST:</p> <p>24 Q Turn to page 37. Which I think we were</p>	<p style="text-align: right;">Page 324</p> <p>1 types 30 and 40) and talc/carbonate schist (ore</p> <p>2 types 10 and 20.)"</p> <p>3 A Right.</p> <p>4 Q Okay. You agree with me that nowhere</p> <p>5 in here are they talking about ore type 66 which</p> <p>6 was used in Johnson &amp; Johnson in its talcum</p> <p>7 powder?</p> <p>8 MS. O'DELL:</p> <p>9 Object to the form.</p> <p>10 A They don't mention it.</p> <p>11 MR. FROST:</p> <p>12 Q Okay. And, then, also on page 2, if</p> <p>13 you look down to the next paragraph, second</p> <p>14 sentence states, "Blast holes are analyzed for</p> <p>15 brightness, talc, and arsenic content and the</p> <p>16 presence of amphiboles."</p> <p>17 MS. O'DELL:</p> <p>18 Where are you reading, Jack?</p> <p>19 MR. FROST:</p> <p>20 It's third paragraph, second sentence.</p> <p>21 MS. O'DELL:</p> <p>22 Okay. Thank you.</p> <p>23 MR. FROST:</p> <p>24 Q Did I read that correctly?</p>
<p style="text-align: right;">Page 323</p> <p>1 on page 37, weren't we?</p> <p>2 A Yeah.</p> <p>3 Q So I'm gonna turn to the bottom</p> <p>4 paragraph.</p> <p>5 A Okay.</p> <p>6 Q The second sentence starts:</p> <p>7 "Production drill data do not seem to include</p> <p>8 asbestos (chrysotile or amphibole) testing, and</p> <p>9 in relation to drill cores taken from the Hamm</p> <p>10 mine, for example, Imerys did not sample talc ore</p> <p>11 intervals containing visible fibrous amphibole."</p> <p>12 Then you say Imerys 238270.</p> <p>13 Did I read that correctly?</p> <p>14 A I think you did.</p> <p>15 Q Let's look at 238270.</p> <p>16 (DEPOSITION EXHIBIT NUMBER 29</p> <p>17 WAS MARKED FOR IDENTIFICATION.)</p> <p>18 MR. FROST:</p> <p>19 Q Do you recognize this document?</p> <p>20 A I do.</p> <p>21 Q First I'll call your attention to the</p> <p>22 second paragraph on page 2. And it states,</p> <p>23 quote, "Generally speaking, there are two types</p> <p>24 of Hamm ore: Massive talc/carbonate "grit" (ore</p>	<p style="text-align: right;">Page 325</p> <p>1 A Right.</p> <p>2 Q Okay. You'd agree with me that drill</p> <p>3 holes are production drill data; correct? That</p> <p>4 blast holes are part of the production drill data</p> <p>5 a mine would produce?</p> <p>6 MS. O'DELL:</p> <p>7 Object to the form.</p> <p>8 A If you use them as such, yes. There --</p> <p>9 there are plenty of companies that don't use them</p> <p>10 other than just for blast holes.</p> <p>11 MR. FROST:</p> <p>12 Q Okay. But here it seems like they are,</p> <p>13 because it says they're testing it.</p> <p>14 A Yes, correct. And that's -- you know,</p> <p>15 that's one of the reasons I cited this.</p> <p>16 Q Okay. But, again, like you said, they</p> <p>17 do not seem to include asbestos, chrysotile, or</p> <p>18 amphibole. Don't they say directly here that</p> <p>19 they're testing for the presence of amphibole?</p> <p>20 A They do.</p> <p>21 Q Okay.</p> <p>22 A My issue was we didn't have any test</p> <p>23 results for amphibole.</p> <p>24 Q Okay. But, again, this document -- you</p>

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<p style="text-align: right;">Page 326</p> <p>1 know, the statement you attribute to this 2 document is that production drill data does not 3 seem to include asbestos, but it shows here 4 they're specifically testing for it; correct? 5 MS. O'DELL: 6 Object to the form. That's not what 7 his statement is in his report. 8 MR. FROST: 9 Q Okay. Well, I thought I read it 10 correctly. 11 I'll also turn your attention to page 12 4. 13 A Okay. 14 Q And the last sentence says, "Talc ore 15 observed to contain fibrous amphibole was not 16 included in a sample interval." 17 And that's what you note in your 18 report; correct? 19 A Right. 20 Q Okay. 21 A Yeah, that would -- that -- I can't 22 understand why they wouldn't have pulled it out, 23 looked at it to see if it is truly asbestos or 24 not.</p>	<p style="text-align: right;">Page 328</p> <p>1 A No, no. They're rejecting the analysis 2 of it. They don't say they're rejecting the -- 3 the ore. I mean, that -- that would be a 4 completely different thing. 5 If I -- if I was drilling at, say, Hamm 6 and pulled out a piece of drill core that had a 7 foot of cross-fiber asbestos in it, I'd sure want 8 to know everything about it, where it was, where 9 it went, is it truly asbestos, what's the 10 mineralogy, what's it associated with. I 11 wouldn't remove it from the core and throw it 12 away. 13 Q So, based on this one single sentence 14 in this one document, you are assuming that 15 because they're not testing what they already 16 have identified as fibrous amphiboles, that 17 they're including it in the ore? 18 MS. O'DELL: 19 Object to form. 20 A No, no. I didn't say that at all. 21 MR. FROST: 22 Q But -- so the whole point of testing's 23 to figure out where, for example, asbestos would 24 be and where it wouldn't be in the deposit;</p>
<p style="text-align: right;">Page 327</p> <p>1 Q Well, that -- that kind of becomes my 2 question. 3 Sorry. I didn't mean to interrupt him. 4 If you're not done -- sorry. 5 MS. O'DELL: 6 You may finish. 7 A Yeah. That was one of the reasons that 8 I mentioned this. And there -- there are other 9 places where it's pretty clear that they -- they 10 actually rejected core from analysis, and yet 11 they mention amphiboles. And it was like, "Okay. 12 There's some amphibole. We're not analyzing this 13 stuff." You got that feeling from looking at 14 some of this material. 15 MR. FROST: 16 Q Well, what would be the purpose of 17 testing something you already know contains 18 fibrous amphibole? Don't they already know 19 there's asbestos in that? 20 A To determine whether or not it really 21 is asbestos. 22 Q Well, if they're rejecting it because 23 it has fibrous amphibole, who cares if it is 24 actually --</p>	<p style="text-align: right;">Page 329</p> <p>1 correct? 2 A It's -- it's that and to determine 3 the -- the characteristics of the fibrous 4 amphibole. 5 Q And, again, if you're trying to come up 6 with a mine plan, you're trying to figure out 7 where you should take ore from and where you 8 shouldn't. Correct? 9 A Correct. And this is -- I mean, this 10 is part of my point. I mean, what happens if the 11 geologist that logged this core leaves and takes 12 another job and you hire somebody else? He has 13 to come in and pick up where the other guy left 14 off, and he's charged with helping to devise the 15 mine plan, and that interval's gone. 16 Q Let me -- that's a great question, too. 17 A I mean -- 18 Q No, no. Hold on. 19 Where in the sentence does it say 20 they've left it out of the mine plan? 21 A The mine plan isn't -- isn't mentioned 22 here. I'm just using that as an example of 23 how -- 24 Q Well, I was gonna say --</p>

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<p style="text-align: right;">Page 330</p> <p>1 A -- this could be very, very bad.  2 MS. O'DELL:  3 Let him finish.  4 MR. FROST:  5 Q So you're speculating that because they  6 weren't specifically testing something they've  7 already identified as asbestos, that they're  8 leaving it out of the mine plan?  9 A Did they call that asbestos?  10 Q They called it fibrous amphibole.  11 A Right.  12 Q So --  13 But you're saying the whole theory is  14 that somebody might come later and might not know  15 what it is. But that means that this wasn't  16 included on a mine plan.  17 A That's not what I said.  18 Q So you're drawing a --  19 No, no?  20 You're drawing a lot of conclusions  21 that aren't supported by this document. Do you  22 agree with me?  23 A That is not --  24 MS. O'DELL:</p>	<p style="text-align: right;">Page 332</p> <p>1 A The concern is that they didn't pull it  2 out and test it. And there are other -- there  3 are other statements, maybe not in this  4 particular document, where they actually talk  5 about removing the intervals and throwing them  6 away.  7 Q Okay. So, again, your whole basis is  8 they've identified it's asbestos, but they  9 haven't tested to see exactly what type of  10 asbestos it is?  11 A Fibrous amphibole.  12 MS. O'DELL:  13 Excuse me.  14 MR. FROST:  15 Q Okay.  16 MS. O'DELL:  17 Excuse me. Just let me object.  18 MR. FROST:  19 Okay.  20 MS. O'DELL:  21 Give me a minute.  22 THE WITNESS:  23 Sure.  24 MS. O'DELL:</p>
<p style="text-align: right;">Page 331</p> <p>1 Excuse me.  2 A That is not what I said.  3 MR. FROST:  4 Q Okay. Let's turn to page --  5 A I did not say that.  6 MS. O'DELL:  7 He's not finished yet.  8 A This is very simple. When you're  9 logging drill core, if you see something that's  10 suspect, you don't ignore it. You pull it out,  11 you test it, you make notes about it, and, if  12 you're having to use it in a mine plan, you make  13 damn sure that the people that come behind you  14 know that you saw fibrous amphibole at this step  15 in this particular drill hole.  16 MR. FROST:  17 Q And where does it say they're not  18 logging it? That's my confusion.  19 A No, no. They have it --  20 Q Where in this sentence does it say  21 they're not logging it?  22 A I'm not saying that they didn't log it.  23 Q But you're saying that's the whole  24 concern.</p>	<p style="text-align: right;">Page 333</p> <p>1 Don't interrupt him.  2 MR. FROST:  3 Q Okay. Can you turn to page 1, please.  4 MS. O'DELL:  5 Object to the form.  6 Have you finished your answer, Doctor?  7 If you have, fine.  8 MR. FROST:  9 Yeah. I was actually in the middle of  10 a question. You interrupted me, Leigh.  11 Q So can we turn back to page 1, please?  12 MS. O'DELL:  13 My apologies. It's hard to tell  14 because --  15 MR. FROST:  16 That's okay.  17 MS. O'DELL:  18 -- you keep getting cut off.  19 So what's your question?  20 MR. FROST:  21 Q Turning to page 1, second paragraph  22 down, it says, quote, "Fibrous amphiboles  23 (actinolite) were observed only within  24 chloritized mafic dikes, extending, in places, a</p>

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<p style="text-align: right;">Page 334</p> <p>1 couple of inches into the contacting talc ore."  2 So they certainly documented where it  3 was they found the fibrous amphiboles.  4 A Sure.  5 Q And they've identified what type of  6 fibrous amphibole it is. So it's clearly part of  7 the mine knowledge. They've identified that it's  8 actinolite and that it's fibrous, and they've  9 also identified that it only extends a couple  10 inches into the ore body. Is that correct?  11 A That's correct.  12 Q And you also -- you note somewhere else  13 in your report in the beginning that, as a rule  14 of thumb, they used, you know, exclusion zones.  15 And that's --  16 A Selective mining.  17 Q Yeah.  18 So, again, if they know where it is,  19 they know how far it extends into the dike and  20 it's -- they're using exclusion zone, don't they  21 know where this fibrous amphibole is and aren't  22 they avoiding it?  23 MS. O'DELL:  24 Object to the form.</p>	<p style="text-align: right;">Page 336</p> <p>1 information.  2 A No. If there was only one drill hole  3 and if the ore deposit was bounded by a flat  4 plane or surface and you have a drill hole that  5 goes through it and you know that the ore body  6 margin is a flat plane, then you can design  7 your -- your -- your -- your mine to stay away  8 from that one point.  9 The problem with this is that the ore  10 bodies are irregular in shape. So you have a  11 drill hole. Yep, we found a little bit of  12 asbestos, but you don't know five feet away  13 whether or not you've got asbestos. You don't  14 know whether it will be a foot thick or  15 millimeter thick or if it's gonna be there at  16 all.  17 Q Okay. But, again, that's, one,  18 different than what you said here in the report,  19 but, two, what I'm getting at, isn't interpreting  20 the drill holes and interpreting, you know,  21 what's coming in and out of the mine what the  22 mine engineer does? Isn't what they  23 extrapolate -- extrapolate based on their  24 experience within the ore and they extrapolate</p>
<p style="text-align: right;">Page 335</p> <p>1 A In that one point where that one drill  2 hole goes through the zone that has fibrous  3 amphibole, we're gonna assume it's asbestos.  4 But you're looking really at a  5 one-dimensional point in a three-dimensional  6 space. So how do you design your mine around  7 that point?  8 I mean, if -- if the ore body was  9 bounded by absolutely vertical straight walls  10 that extend in all directions to infinity, then  11 that one drill hole is really all you need, and  12 you -- you can design a mine around that one  13 hole.  14 But that's not -- that's not the shape,  15 size of the ore bodies out here.  16 MR. FROST:  17 Q Okay. You're confusing me again.  18 Where does it say that it's only one ore sample  19 they ever found fibrous amphibole in?  20 A I didn't say that.  21 Q Well, that's what your answer you just  22 gave me implied, that --  23 A No. I said --  24 Q -- it -- that they wouldn't have</p>	<p style="text-align: right;">Page 337</p> <p>1 based on their production drill holes, based on  2 the exploratory drill holes, what they expect the  3 talc body to look like?  4 A Absolutely.  5 MS. O'DELL:  6 Object to --  7 Excuse me. I object to the form of the  8 question. I object to the commentary. Misstates  9 the report.  10 MR. FROST:  11 I don't believe there was any  12 commentary, but --  13 MS. O'DELL:  14 There was commentary leading up.  15 A I understand your question. The -- the  16 mining superintendent, which at Argonaut was one  17 of my former students for four years, they are  18 charged with taking all the data that we're  19 talking about and designing a mine plan that  20 insures that J&amp;J is not gonna receive a product  21 coming out of the West Windsor mill that's got  22 asbestos in it. And that -- that is a very --  23 that's a tough order. I mean, you've got to be  24 on your toes and --</p>

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<p style="text-align: right;">Page 338</p> <p>1 And, in my experience, it's not -- it's  2 not a good idea to -- to ignore something that  3 you see in drill core that may be deleterious  4 without -- without testing it, maybe even  5 drilling a second hole.  6 There's a process known as hole  7 twinning, and a person might have wanted to --  8 it's almost like the duplicate analysis. It  9 doesn't find anything the second time. Sometimes  10 you drill a second hole five feet away and  11 there's nothing there. Hey, good.  12 MR. FROST:  13 Q So this is why I'm confused. I mean,  14 again, this document doesn't talk about twinning.  15 It doesn't talk about ---  16 A No, no.  17 Q They may have been doing all these  18 things. You're talking now in sort of  19 generalities as far as mining goes.  20 A I'm trying to be as specific as I can.  21 MS. O'DELL:  22 Object to the form.  23 MR. FROST:  24 Q But what I'm saying is --</p>	<p style="text-align: right;">Page 340</p> <p>1 that all fibrous amphibole is asbestos? It's  2 fine with me if we do.  3 MR. FROST:  4 Q Well, they called it here fibrous  5 amphibole actinolite.  6 A I know. They don't use the word  7 "asbestos."  8 Q Okay.  9 A Okay. So -- so let's call it asbestos.  10 To know whether or not something's actinolite,  11 you've got to know the chemistry, and you can't  12 do that by logging drill core.  13 If it's -- if it's a green fibrous  14 amphibole, then if I was logging it, I'd assume  15 it was actinolite. Okay. Go with it. I --  16 The point of all this is that --  17 that -- that a fibrous amphibole in a drill hole,  18 even if it's at the ore body margin, is an  19 important thing.  20 Q Okay.  21 A And I would have done more than just --  22 than just pass it off, which is the feeling that  23 I got when I read that, that they didn't do  24 anything with it but record it. So, okay.</p>
<p style="text-align: right;">Page 339</p> <p>1 Let's see. What do we have here?  2 So you have, "Imerys did not sample  3 talc ore intervals containing visible fibrous  4 amphiboles. This is contrary to all accepted  5 sampling practices."  6 But, again, if they know that this  7 particular section of the drill core contained  8 asbestos, we know they've identified where it is  9 on the mine plan because they say that on, one,  10 fibrous amphibole was observed only within the  11 chloritized mafic dikes, extending in places a  12 couple inches into the containing [sic] talc ore.  13 We know they've already identified it as  14 actinolite asbestos.  15 A Well, they describe --  16 Q What are they leaving out of the  17 analysis? Just that they're confirming that what  18 they believe is fibrous amphibole actinolite  19 actually is fibrous amphibole actinolite?  20 MS. O'DELL:  21 Object to the form. Misstates the  22 document.  23 A Well, to start with, they call it  24 fibrous amphibole. Okay? Are we gonna assume</p>	<p style="text-align: right;">Page 341</p> <p>1 Q And can you give me --  2 Because you say here, you know, that  3 this is contrary to all accepted sampling  4 practices.  5 A Yes.  6 Q What are you relying on for that? What  7 published literature, what regulation, what law?  8 A There's --  9 Oh, this isn't a legal issue at all.  10 But if you --  11 There are many books that have been  12 written about the evaluation and sampling of a  13 mine. And when you -- when you hit a critical  14 interval, if it's a channel sample underground  15 that you're cutting with your rock hammer, if  16 you're digging a trench at the surface, if you're  17 drilling a drill hole, when -- when you -- when  18 you hit something that's significant relative to  19 the commodity you're looking at, you normally do  20 more with it than just make a note, "Oh, there it  21 is," and move on.  22 Q Okay. And what from this document  23 implicates to you that they just moved on from it  24 and they didn't put it in the mine plan?</p>

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<p style="text-align: right;">Page 342</p> <p>1 A We have no mine plan.</p> <p>2 Q So --</p> <p>3 A We've asked for the mine plan.</p> <p>4 Q So you're basing everything off the</p> <p>5 fact that you haven't seen a mine plan? So</p> <p>6 you've read that in conjunction with this</p> <p>7 document to say that they are just ignoring the</p> <p>8 fibrous amphibole that they're finding and moving</p> <p>9 on, which is contrary to standard --</p> <p>10 MS. O'DELL:</p> <p>11 Excuse me --</p> <p>12 A That's absolutely not what I said.</p> <p>13 MS. O'DELL:</p> <p>14 Excuse me. Object to the form.</p> <p>15 A Did not say that.</p> <p>16 MS. O'DELL:</p> <p>17 Object to the form. Misstates his</p> <p>18 testimony.</p> <p>19 A Really. I didn't say that.</p> <p>20 MR. FROST:</p> <p>21 Q So, again, what -- what is it that</p> <p>22 they're doing here that is contrary to standard?</p> <p>23 Is it purely that they're not testing to see</p> <p>24 exactly what the fibrous actinolite or the --</p>	<p style="text-align: right;">Page 344</p> <p>1 And a lot of times you blame that on</p> <p>2 the driller, but -- but it may simply be because</p> <p>3 of a characteristic of the rock itself.</p> <p>4 And, so, there -- when you -- when you</p> <p>5 look at all the drill core data, what you find is</p> <p>6 that there -- there are drill holes that -- that</p> <p>7 we have missing -- we have missing core, and it's</p> <p>8 not the fault of anybody. Probably it's just the</p> <p>9 rock.</p> <p>10 Then we have areas where there's</p> <p>11 actually notations that the drill core has been</p> <p>12 discarded, removed from the core box, and thrown</p> <p>13 away. And that's suspicious.</p> <p>14 Q Okay.</p> <p>15 A And that's, you know, part of the big</p> <p>16 picture here.</p> <p>17 Q But, again, the only document you're</p> <p>18 showing for reliance to the statement that this</p> <p>19 is contrary to all accepted sampling practices is</p> <p>20 Imerys 238270, which shows that they have</p> <p>21 identified there's a potential problem in the</p> <p>22 body. They've also identified where it is, and</p> <p>23 they've identified that they're avoiding it;</p> <p>24 correct?</p>
<p style="text-align: right;">Page 343</p> <p>1 What do they call it?</p> <p>2 -- fibrous amphibole actinolite is? Is</p> <p>3 that -- is that your --</p> <p>4 Your main gripe is that they haven't</p> <p>5 confirmed whether or not it's asbestiform or not</p> <p>6 asbestiform?</p> <p>7 A That would be --</p> <p>8 MS. O'DELL:</p> <p>9 Object to the form.</p> <p>10 A That would be a complaint.</p> <p>11 MR. FROST:</p> <p>12 Q Okay.</p> <p>13 A But -- but this is part of a larger</p> <p>14 picture. You know, as I mentioned, I think that</p> <p>15 there -- there are other instances where the</p> <p>16 logging of drill core ended up with a couple of</p> <p>17 issues, one. And this is typical of diamond</p> <p>18 drilling. You don't have a hundred percent core</p> <p>19 recovery anyway.</p> <p>20 And, so, it's difficult to make mine</p> <p>21 plans when you've got -- when you're pulling core</p> <p>22 intervals where you've drilled 10 feet, you've</p> <p>23 got 3 feet of core. So you go, "Wait a minute,</p> <p>24 you know, "What have I missed?"</p>	<p style="text-align: right;">Page 345</p> <p>1 MS. O'DELL:</p> <p>2 Object to the form. He just stated</p> <p>3 that there are numerous other references. You're</p> <p>4 misstating his testimony.</p> <p>5 A This -- this document doesn't say that</p> <p>6 they're avoiding it. I don't think it does.</p> <p>7 MR. FROST:</p> <p>8 Q Well, this document says where it is in</p> <p>9 the ore body; correct?</p> <p>10 A Absolutely.</p> <p>11 Q And we know from your report, even, you</p> <p>12 state that there's a margin of exclusion. So</p> <p>13 anything extending --</p> <p>14 What do they say?</p> <p>15 -- quote, a couple of inches into the</p> <p>16 contacting talc ore we know would be outside of</p> <p>17 the exclusion area, which you said was at least</p> <p>18 one bucket.</p> <p>19 MS. O'DELL:</p> <p>20 Object to the form. Misstates his</p> <p>21 report.</p> <p>22 A No. I -- I don't agree with that at</p> <p>23 all. I mean, that was why I gave the example.</p> <p>24 If the margin of the ore body is a</p>

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<p style="text-align: right;">Page 346</p> <p>1 straight, flat plane, that's one thing. You</p> <p>2 can -- if you've got something going two inches</p> <p>3 into it, by George, stay five feet away.</p> <p>4 But that's not what the margins of</p> <p>5 these ore bodies are like. They're irregular.</p> <p>6 MR. FROST:</p> <p>7 Q Okay.</p> <p>8 A And, so, if you're gonna produce a mine</p> <p>9 plan that assumes that you've got two inches of</p> <p>10 an asbestiform mineral here and so you -- you</p> <p>11 plan your scope or your bench based on that but</p> <p>12 your bench may be 15 feet this way and you're</p> <p>13 assuming that it's here, well, this thing could</p> <p>14 be irregular, and the margin of the ore body may</p> <p>15 be over here and you don't know it because your</p> <p>16 next drill hole is way up here.</p> <p>17 Q Okay.</p> <p>18 A That's what I'm trying to say.</p> <p>19 Q And it sounds like your opinion is a</p> <p>20 problem with all mining, because that's true of</p> <p>21 every ore body that's gonna be irregular;</p> <p>22 correct?</p> <p>23 MS. O'DELL:</p> <p>24 Object to the form.</p>	<p style="text-align: right;">Page 348</p> <p>1 types of mining, that you are relying on the</p> <p>2 quality of the mine supervisor and the data in</p> <p>3 order to define where the ore body is. Is that a</p> <p>4 fair statement?</p> <p>5 MS. O'DELL:</p> <p>6 Object to the form.</p> <p>7 A I think that that's, you know, that</p> <p>8 could be the opening sentence on a paragraph on</p> <p>9 ore reserve estimation.</p> <p>10 MR. FROST:</p> <p>11 Q Okay.</p> <p>12 A I mean, it's just standard -- you know,</p> <p>13 standard protocol in mining. You take all your</p> <p>14 data and figure out where the ore is.</p> <p>15 Q Then later, turning back to 37, next</p> <p>16 sentence down, you wrote, "By 2006, all Imerys</p> <p>17 Vermont talc production was from a single open</p> <p>18 pit in the Argonaut mine that produced 150,000</p> <p>19 tons of talc per year," and you note "none used</p> <p>20 for cosmetic purposes in the United States</p> <p>21 (Imerys 499538)."</p> <p>22 Correct?</p> <p>23 MS. O'DELL:</p> <p>24 I'm sorry. Where are you?</p>
<p style="text-align: right;">Page 347</p> <p>1 MR. FROST:</p> <p>2 Q And it's not specific to what's going</p> <p>3 on here. I believe this is the Hamm mine.</p> <p>4 A It --</p> <p>5 MS. O'DELL:</p> <p>6 Object to the form.</p> <p>7 A It can be better or worse. But -- but</p> <p>8 the idea is, yes, ore bodies are, you know --</p> <p>9 with some exceptions, they can be irregular</p> <p>10 things. And it's very common to have wall rock</p> <p>11 mixed in with ore when you're over near the side</p> <p>12 of an ore body. And -- and in these, it's pretty</p> <p>13 tough to know, particularly underground. It's</p> <p>14 rough.</p> <p>15 MR. FROST:</p> <p>16 Q Okay. But, again, that's what the mine</p> <p>17 supervisor's for. That's why you have these</p> <p>18 drilling campaigns; correct?</p> <p>19 A That's right.</p> <p>20 MS. O'DELL:</p> <p>21 Object to the form.</p> <p>22 MR. FROST:</p> <p>23 Q And, you know, so what you're saying is</p> <p>24 a basic statement that applies to, you know, all</p>	<p style="text-align: right;">Page 349</p> <p>1 A I think that's right.</p> <p>2 MR. FROST:</p> <p>3 37 to 38.</p> <p>4 MS. O'DELL:</p> <p>5 Oh, at the bottom. Okay.</p> <p>6 MR. FROST:</p> <p>7 The bottom.</p> <p>8 Q Next sentence is, "Serpentine and</p> <p>9 arsenic occurred near the edges of the ore zone,</p> <p>10 and ore quality control by segregation of the</p> <p>11 mine was inadequate."</p> <p>12 Okay. You'll agree with me now, by</p> <p>13 2006, again, Johnson &amp; Johnson was no longer</p> <p>14 using Vermont talc for its cosmetic talcum</p> <p>15 powder?</p> <p>16 A Correct.</p> <p>17 Q Okay. And you'll also agree with me</p> <p>18 that, by this point, the mine itself was</p> <p>19 producing industrial talcs. Correct?</p> <p>20 A I think that's correct.</p> <p>21 Q Okay. Staying on 38 --</p> <p>22 Bear with me a second here. I guess</p> <p>23 more of a general question than specific</p> <p>24 question, but you'd agree with me, based on the</p>

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<p style="text-align: right;">Page 350</p> <p>1 documents that you have, that you can't make a  2 full map of sampling frequency, where exactly  3 samples were coming from, you know, how they  4 were -- how they were being taken. I think we  5 covered this earlier. Is that correct?  6 MS. O'DELL:  7 Object to the form. What type of --  8 MR. FROST:  9 Q You know, there are -- there are holes  10 in the documents about frequency of testing,  11 frequency of sampling, things of that nature.  12 Correct?  13 A Are you talking about in the mine or in  14 the mill of --  15 Q In general in the mines. Exactly.  16 MS. O'DELL:  17 Excuse me. Object to the form.  18 What specific types of --  19 MR. FROST:  20 Well, that's what we were trying to  21 define.  22 Q You know, we're talking about in  23 general. You know, we'll start with there  24 appears to be -- you know, you don't have a</p>	<p style="text-align: right;">Page 352</p> <p>1 composite on the back end. Correct?  2 MS. O'DELL:  3 Object to the form.  4 A The --  5 I think that -- that your statement is  6 correct, based on what your own documents say.  7 MR. FROST:  8 Q Uh-huh.  9 A You know, they say, you know, sampling  10 intervals will be such and so, at what points  11 they're gonna be.  12 We know that we don't have all the data  13 for -- for the mines. Because if they're gonna  14 analyze the cutting from blast holes, there's got  15 to be just tons of analyses out there.  16 Q Okay.  17 A And -- and -- and, in the mill, it's  18 very difficult to know because, you know, when  19 you're looking at -- at compositing samples that  20 are taken, you know, that -- that becomes a  21 different issue in itself.  22 Q Okay. All right. We're in agreement  23 that you certainly -- whether or not it was  24 produced, not produced, you know, you don't have</p>
<p style="text-align: right;">Page 351</p> <p>1 complete -- you don't have a complete set of all  2 drill core sampling; correct?  3 MS. O'DELL:  4 Object to the form.  5 MR. FROST:  6 Q In your documents.  7 A I don't know that.  8 Q Okay. But you cert- -- there certainly  9 doesn't appear that you have -- and I think  10 you've identified earlier that you appear to be  11 missing years and missing drill core area;  12 correct?  13 MS. O'DELL:  14 Object to the form. He didn't say that  15 in his testimony. Not in regard to drill core.  16 A We -- we have maps that show the  17 location of drill holes. We do not have logs for  18 all of those drill holes.  19 MR. FROST:  20 Q Okay. And the same thing with  21 sampling. It does not appear that you have a  22 complete set of the sampling records; correct?  23 A For the mines?  24 Q For the mines, the mill, and for the</p>	<p style="text-align: right;">Page 353</p> <p>1 a complete set of all the sampling that was done  2 at the mines, mills, and on the composite back  3 end. Is that a fair summary?  4 MS. O'DELL:  5 Object to the form.  6 A Yeah.  7 MS. O'DELL:  8 "Composite back end," I'm not sure what  9 you're referring to.  10 MR. FROST:  11 Q Yeah. The composite back end testing  12 of the --  13 A Yeah. I think the word --  14 Q -- the ground product.  15 A -- isn't "sampling," but we don't have  16 a complete set of analytical data. We know about  17 the sampling, but it's -- it's the data and more  18 information related to the data that we don't  19 have.  20 Q Okay. That's a more precise way of  21 saying it.  22 A Yeah. Sure.  23 Q Okay. Turn to page 39.  24 A Okay.</p>

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<p>1 Q You say, quote, "It is inadequate -- it 2 is inadequate to collect a single daily or hourly 3 hand or grab sample from an ore stockpile in 4 front of a crusher, or from a conveyor belt 5 leaving a grinding circuit, and assume that this 6 one sample or a composite, perhaps a kilogram in 7 size, is representative of a day's production of 8 several hundred tons." 9 Did I read that correctly? 10 A Yep. 11 Q Don't you agree with me the only way to 12 determine whether or not a sample is actually 13 representative of the whole is to conduct a 14 geostatistical analysis of that sample versus the 15 size? 16 MS. O'DELL: 17 Object to the form. 18 A Well, I think that it's much more than 19 that. I would -- I would say that -- that, if I 20 was designing a sampling program for, let's say, 21 the West Windsor mill, I would want to have a 22 person that was in charge of sampling and 23 analyses. 24 We have somebody like that at one of</p>	<p>1 sample was taken. 2 A Right. You may have a day that it is, 3 but the problem is you may have a day when it 4 really isn't and something slips by that you 5 don't want to slip by. 6 Q But what I'm getting at is the only way 7 to truly derive if something is representative is 8 to run the -- 9 You know, all of the literature agrees 10 that the only way to truly determine something is 11 representative or not is to run a statistical 12 analysis of it; correct? 13 MS. O'DELL: 14 Object to the form. 15 A You -- you determine the -- the 16 confidence interval of the process that you're 17 proposing. And if you wanted to have something 18 that you were 95 percent confident was correct, 19 then, you know, you begin to work backwards and 20 take a look at how you're sampling. 21 MR. FROST: 22 Q Okay. 23 A I mean, that's a process -- a technique 24 that's been around for a long time.</p>
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<p>1 our mines up the road here. It adds a nickel a 2 ton to the cost of our production, and -- and yet 3 we are able to sample daily multiple times and 4 run all the samples that day, and at the end of 5 the day, we know what's gone in the railcar. 6 There is no ambiguity at all. 7 And that's not what -- what's been 8 done. 9 MR. FROST: 10 Q Okay. 11 A I mean, you can't just grab a few 12 pieces of rock and analyze them and say, "Oh, 13 that's -- that's representative of what we mined 14 today." 15 "Well, how many tons did you mine?" 16 "Oh, it was three or four hundred 17 tons." 18 That doesn't work. 19 Q Well, let's see. Even you say, the 20 next sentence down, that -- you say -- you 21 yourself say it may or may not be representative; 22 correct? You say it may or may not be 23 representative of the material processed on the 24 individual sample -- on the day the individual</p>	<p>1 But it's very difficult to apply that 2 to feed coming into a plant. And that was my 3 point. You know, if you don't -- if you don't 4 have a formal sampling, you know, analysis 5 program set up where ore enters the mill or, 6 let's say, enters a stockpile that's gonna feed 7 the mill from, then -- then I think that you've 8 got an issue right from the very start. Because 9 no matter what you feed your statistical 10 analysis, if you're not collecting your samples 11 properly, it's not -- not gonna matter what the 12 mass says. 13 And believe me, we've -- we've been 14 gigged on this. We have had railcars -- 15 We ship out in 60-car lots, and we have 16 had whole trainloads rejected because of 17 out-of-spec ore in one car. And when you're 18 losing 60 -- 59 other cars that are probably 19 good, I mean, this -- this is an important point. 20 Q Okay. You'd agree with me the reason 21 you say you may or may not be representative is 22 because you haven't done any calculations as to 23 the confidence interval; correct? 24 MS. O'DELL:</p>

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<p style="text-align: right;">Page 358</p> <p>1 Object to the form. Misstates his 2 testimony. 3 A No. Like I said, I haven't done any 4 mathematical analysis of anything. But I've 5 certainly been involved with exactly what we're 6 talking about forever more. I mean, it's a -- 7 it's a serious point with me. 8 MR. FROST: 9 Q But, again, your conclusion here isn't 10 that it absolutely is or it absolutely is not. 11 You say it may or may not be. That's your -- 12 that's your ultimate conclusion. That's correct? 13 A Any -- 14 MS. O'DELL: 15 Excuse me. 16 THE WITNESS: 17 Yeah. Sure. 18 MS. O'DELL: 19 Object to form. 20 A Any given example may or may not be in 21 that. 22 MR. FROST: 23 Q All right. Page 40. It's technically 24 the second full paragraph there, third paragraph</p>	<p style="text-align: right;">Page 360</p> <p>1 Q You'll -- we will agree that TEM is an 2 appropriate instrument to use to test to see if 3 there is asbestos in talc; right? 4 A Yes. 5 Q And I take it your issue with this 6 parameter is the five-fiber detection limit? 7 A Well, I can explain it maybe a little 8 bit better than I stated it. 9 If you have a background that is one 10 and you find three fibers and, yet, to be 11 quantifiable you need five, then why aren't the 12 three fibers reportable since they are over the 13 background? 14 That's -- that was the concept in what 15 I wrote there. And it almost seems like the use 16 of quantifiability is evading the issue of tiny 17 amounts of material that may be there but in a 18 small increment over the -- the background. 19 Q Have you calculated what you determine 20 to be the proper detection quantifield -- 21 quanti- -- 22 A I know. 23 Q You know the word I'm trying to say? 24 A Right.</p>
<p style="text-align: right;">Page 359</p> <p>1 on the page, bottom two sentences: 2 Five particles of the same asbestiform 3 mineral were required for asbestos to be 4 considered quantifiable. Amounts less than this 5 were considered background or below detection 6 limits. This suggests that something may [sic] 7 be quantifiable if present, and this is not the 8 case. 9 Did I read that correctly? 10 MS. O'DELL: 11 "Must be"? 12 MR. FROST: 13 Yes. 14 Q Must be quantifiable if present, and 15 this is not the case. 16 A Yeah. 17 Q Okay. 18 A That -- that's -- that's right. 19 Q All right. Are you an expert in 20 designing TEM test methodologies? 21 A No. 22 Q Have you ever designed test 23 methodologies for testing asbestos in talc? 24 A No.</p>	<p style="text-align: right;">Page 361</p> <p>1 Q Have you run a calculation to detect 2 what the appropriate level should be? 3 MS. O'DELL: 4 Object to the form. 5 A Well, like I said, I'm not a -- I'm not 6 a statistician. But I have -- I have done some 7 back-of-the-envelope, and -- and this is -- this 8 is what I see. 9 If you take a hundred analyses, 95 of 10 them show nothing, five of them show one fiber, 11 and those hundred analyses are of blanks, then 12 what are you gonna call your background if 95 of 13 them show nothing? I would say that background 14 is zero. 15 If background is zero, then if you find 16 four fibers, there's something in that sample, 17 and yet it's not quantifiable. And, so, from the 18 standpoint of that kind of math, yeah. I mean, 19 but anybody can do that. 20 Q Do you know who Walter McCrone is? 21 A Sure. 22 Q And do you know who James Millette are? 23 A Well, we've been talking about 24 Millette. I don't think that I know James</p>



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<p style="text-align: right;">Page 362</p> <p>1 Millette.  2 Q Okay.  3 A We know some Millettes but not him.  4 Q All right. Would you agree with me  5 that Walter McCrone is generally considered to be  6 a leader in the field of TEM testing and  7 technologies?  8 MS. O'DELL:  9 Object to the form.  10 A He is certainly a leader in polarized  11 light microscopy. And I think that -- that, as  12 time went on, he became a real expert in TEM  13 analysis.  14 MR. FROST:  15 Q And because it seems like you know a  16 bunch of Millettes but not the James Millette,  17 you can't tell me whether or not he's a leader --  18 A Well, there's a Millette that was a  19 mining engineer, mining geologist here in  20 Alabama. And we were wondering if this Millette  21 was related to him, and we found out he wasn't.  22 Q I was gonna say, you know, I actually  23 know the answer.  24 All right. I'd like to mark this</p>	<p style="text-align: right;">Page 364</p> <p>1 it down at the bottom, and I can't read it. It's  2 minuscule.  3 Q I believe it's 1990, by the -- the  4 journal.  5 A Okay.  6 Q If you look to the first page on the  7 journal, Volume 38, Fourth Quarter, 1990.  8 A Oh. Okay. I've got it. Sure.  9 MS. O'DELL:  10 Yeah. And Kremer, K-R-E-M-E-R.  11 MR. FROST:  12 Yeah, K-R-E-M-E-R. "Creamer," maybe.  13 Q Turn to page 463. Under number 6,  14 Limit of Quantifiable Detection.  15 A Okay.  16 Q Do you see here that they note "The  17 detection limit of five or more asbestiform  18 minerals of one variety in an analysis  19 constitutes a quantifiable level of detection"?  20 A Right.  21 Q And you agree with me that that's the  22 same level of quantification in the J&amp;J  23 specifications?  24 MS. O'DELL:</p>
<p style="text-align: right;">Page 363</p> <p>1 article as 31.  2 THE COURT REPORTER:  3 30. It's gonna be 30.  4 MR. FROST:  5 30. Sorry. I was looking at your  6 stickers to try to figure out.  7 (DEPOSITION EXHIBIT NUMBER 30  8 WAS MARKED FOR IDENTIFICATION.)  9 MR. FROST:  10 Q Have you ever heard the publication  11 Microscope?  12 A I have. But I don't get it.  13 Q It's not one you subscribe to or read?  14 A No.  15 Q But -- and you at least do recognize  16 that it is a peer-reviewed publication that's out  17 there?  18 A It's out there.  19 Q And, looking at page 457, do you see  20 that the name of this article is "A Standard TEM  21 Procedure for Identification and Quantification  22 of Asbestiform Minerals in Talc"? Then it lists  23 Kremer, James Millette.  24 A Yeah. I'm trying to read the date on</p>	<p style="text-align: right;">Page 365</p> <p>1 Object to form.  2 A That's the number that's in -- in  3 most --  4 I've seen four a couple of times, but I  5 think five is -- is the one I see the most.  6 MR. FROST:  7 Q Okay. So you agree with me, anyway,  8 that the five, you know --  9 A Right.  10 Q -- is in line with the limit of  11 quantifiable detection published in the  12 Microscope --  13 A Right.  14 Q -- in fourth quarter of 1990?  15 A Correct.  16 Q Okay. Turn to page 41.  17 A Okay.  18 Q And I'm not gonna belabor the point  19 because I think we talked about this pretty  20 significantly when we were looking at the Chinese  21 document. But the second paragraph after Testing  22 Methodologies, halfway through, you write that,  23 "Finally" -- in the sentence that starts  24 "Finally, an Imerys talc letter in 2013 states,"</p>

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<p style="text-align: right;">Page 366</p> <p>1 and it goes on.</p> <p>2 And at the very bottom of this, "This,</p> <p>3 of course, suggests an asbestos content of less</p> <p>4 than .1 is acceptable, which is contrary to</p> <p>5 Defendants' policy that its products be</p> <p>6 asbestos-free."</p> <p>7 This is the same opinion you had as to</p> <p>8 the Chinese test; right? Correct?</p> <p>9 A No. No. This is different. I -- I</p> <p>10 was surprised to even see that because it looked</p> <p>11 like that suddenly we're gonna accept an asbestos</p> <p>12 content up to .1. I mean, to me, it read very</p> <p>13 strangely. I wasn't sure that it was even</p> <p>14 written the way it was meant to sound.</p> <p>15 Q Oh. I see.</p> <p>16 A Yeah. I mean, if you -- if you go back</p> <p>17 and look at the document, it almost sounds like</p> <p>18 they're saying, "Well, you know, we've done the</p> <p>19 best we can, but if it's got .09 percent</p> <p>20 asbestos, well, that's below the .1 accepted</p> <p>21 standard, so" --</p> <p>22 You know, it seemed like a very</p> <p>23 peculiar statement.</p> <p>24 Q I see. So the -- it's -- the notation</p>	<p style="text-align: right;">Page 368</p> <p>1 Exhibit 31.</p> <p>2 (DEPOSITION EXHIBIT NUMBER 31</p> <p>3 WAS MARKED FOR IDENTIFICATION.)</p> <p>4 MR. FROST:</p> <p>5 Q We're gonna turn gears a little bit</p> <p>6 here. Just to make it easier, I've put a</p> <p>7 collection of documents together in one binder so</p> <p>8 we don't have to worry about --</p> <p>9 A Oh, wonderful.</p> <p>10 Q -- running everything around.</p> <p>11 A Okay.</p> <p>12 Q So looking at page 13 of your report,</p> <p>13 running through page 21, this is the chart we</p> <p>14 talked about, you know, earlier --</p> <p>15 A Right, right.</p> <p>16 Q -- that has the various asbestos.</p> <p>17 A Right.</p> <p>18 Q And you've looked at each of these</p> <p>19 documents, you testified, that relates to the</p> <p>20 various entries on this chart?</p> <p>21 A Yes.</p> <p>22 Q And, sitting here today, can you tell</p> <p>23 me confidently that every one of the positive</p> <p>24 test results on this chart, you know, relates to</p>
<p style="text-align: right;">Page 367</p> <p>1 here is more the peculiarness of the statement</p> <p>2 and the document --</p> <p>3 A Well, if it's -- if it's accurate,</p> <p>4 then -- then -- then it means that everything has</p> <p>5 changed suddenly, that we're not -- we're not</p> <p>6 talc -- we're not asbestos-free and, in fact,</p> <p>7 we're gonna accept it up to .1.</p> <p>8 Q You'd agree with me -- this is what we</p> <p>9 covered before -- the test specification for</p> <p>10 Johnson &amp; Johnson's talc is utilizing the FDA</p> <p>11 J4-1, which is the XRD testing method, followed</p> <p>12 by PLM; correct?</p> <p>13 A Correct.</p> <p>14 MS. O'DELL:</p> <p>15 Object to the form.</p> <p>16 MR. FROST:</p> <p>17 Q And we've also seen that there's TEM</p> <p>18 testing requirement, too, in the J&amp;J talc</p> <p>19 specification; correct?</p> <p>20 MS. O'DELL:</p> <p>21 Object to the form.</p> <p>22 A Correct.</p> <p>23 MR. FROST:</p> <p>24 Q All right. I'm gonna mark this as</p>	<p style="text-align: right;">Page 369</p> <p>1 asbestos that made its way to a final bottle of</p> <p>2 talcum powder sold by Johnson &amp; Johnson?</p> <p>3 A No.</p> <p>4 Q Okay.</p> <p>5 A I think that there may be a mistake or</p> <p>6 two on here.</p> <p>7 Q Okay. And we're gonna walk through a</p> <p>8 couple.</p> <p>9 A Okay.</p> <p>10 Q I'm not gonna call out every mistake</p> <p>11 because we'll be here -- you know, I'm not gonna</p> <p>12 look at every document and call out every</p> <p>13 mistake, but I do want to go through a few.</p> <p>14 MS. O'DELL:</p> <p>15 Object to the form.</p> <p>16 MR. FROST:</p> <p>17 Q So if we could look at what's been</p> <p>18 marked as Tab 1 in the binder of 31.</p> <p>19 A Right.</p> <p>20 Q This relates to an 8-2-22 --</p> <p>21 Well, first, if you look at page 18 of</p> <p>22 your report, sort of halfway down, for the test</p> <p>23 result for 8-22-1985.</p> <p>24 A Okay.</p>

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<p>1 Q All right. Do you see that references</p> <p>2 document JNJMX68 --</p> <p>3 A Yes.</p> <p>4 Q -- 13019?</p> <p>5 A Right.</p> <p>6 Q And that's talking about McCrone</p> <p>7 project number ME-1862 and specifically samples</p> <p>8 WMI85-28 and WMI85-30?</p> <p>9 A Right.</p> <p>10 Q Okay. If you'd turn to Tab 1 of the</p> <p>11 exhibit blinder, you'll agree that this is the</p> <p>12 corresponding document, and we see WMI85-28 --</p> <p>13 A Yes.</p> <p>14 Q -- and 85-30 listed?</p> <p>15 A Yes.</p> <p>16 Q Okay. And, from this document, you</p> <p>17 can't tell where the samples WMI85-28 and</p> <p>18 WMI85-30 were mined; correct?</p> <p>19 MS. O'DELL:</p> <p>20 Object to the form.</p> <p>21 A I don't think I can.</p> <p>22 MR. FROST:</p> <p>23 Q If you turn to --</p> <p>24 A I think that they actually -- the</p>	<p>1 that samples TC-700 were actually talc mined at</p> <p>2 San Andreas, California; correct?</p> <p>3 A It would seem to say that, yeah.</p> <p>4 Q Okay. All right. Looking back at your</p> <p>5 report, the next entry down, 4-29-1986, it's on</p> <p>6 page 18.</p> <p>7 A Okay. Tab 4?</p> <p>8 Q Yeah. If you turn to Tab 4 here.</p> <p>9 You're ahead of me already.</p> <p>10 A Okay.</p> <p>11 Q But on the chart you identify J&amp;J182 as</p> <p>12 the source document. Do you agree with me that</p> <p>13 Tab 4 is Exhibit J&amp;J182?</p> <p>14 A Yes.</p> <p>15 Q And, again, on your chart, you just</p> <p>16 have talc samples, but here the talc samples</p> <p>17 listed are WMI85-53, WMI85-55, and WMI85-57;</p> <p>18 correct?</p> <p>19 A Right.</p> <p>20 Q Okay.</p> <p>21 All right. If you'll look back at Tab</p> <p>22 3. I'm sorry. Turn to page 5. I apologize.</p> <p>23 Third page.</p> <p>24 VIDEOGRAPHER:</p>
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<p>1 sample numbers relate to the mill, not the mine.</p> <p>2 Q Well, we'll -- why don't we turn to Tab</p> <p>3 2. This is a document Bates numbered JNJ65646.</p> <p>4 And I'll turn your attention to the second page.</p> <p>5 A Okay.</p> <p>6 Q Then we see here it says WMI85-28 and</p> <p>7 it describes as grade TC-7- --</p> <p>8 A Right. I'm aware of those two. I</p> <p>9 spotted them.</p> <p>10 Q Okay. The grade TC-700?</p> <p>11 A Right. I see that.</p> <p>12 Q So if we turn to the tab marked 3,</p> <p>13 which is a document that starts with Bates Imerys</p> <p>14 013723, and if you can turn to the fourth page of</p> <p>15 that. It's the one that's 13725.</p> <p>16 A Okay.</p> <p>17 Q Under Production Location, the second</p> <p>18 one, San Andreas, California.</p> <p>19 A Correct.</p> <p>20 Q And then if you go over, it says</p> <p>21 "Grade," and then it has "TC-700, light and</p> <p>22 dark."</p> <p>23 A Right.</p> <p>24 Q So, by this document, it's indicating</p>	<p>1 Jack, did you put your mic on?</p> <p>2 MR. FROST:</p> <p>3 Oh, did it fall off? No. I took it</p> <p>4 off.</p> <p>5 Q So look at the page that ends 890.</p> <p>6 A Okay.</p> <p>7 Q And if you'll look up there, we see</p> <p>8 WMI85-53. And, again, that's Grade TC-700?</p> <p>9 A Right.</p> <p>10 Q 85-55, also Grade TC-700.</p> <p>11 A Okay.</p> <p>12 Q And then the 85-57 is also grade</p> <p>13 TC-700.</p> <p>14 A Okay.</p> <p>15 Q Okay. And, you know, as we saw last</p> <p>16 time, the Grade TC-700 comes from San Andreas,</p> <p>17 California; correct?</p> <p>18 A Yeah. I'd have to go back and look,</p> <p>19 but I -- I think it is.</p> <p>20 Q Okay. You can look if you want, but I</p> <p>21 take it you believe me on that one?</p> <p>22 A Okay.</p> <p>23 Q Okay. Look at page 17 of your report.</p> <p>24 Right in about the middle, there's a 10-10-1974</p>

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<p>1 entry on the -- on the chart.  2 A I see it.  3 Q Okay. And it accounts for J&amp;J-74 as  4 the source document.  5 A Hang on. What was the date again?  6 Q 10-10-1974. It's about the middle of  7 page 17.  8 A Right. Right. I'm looking at the  9 other one.  10 Huh. Page 17?  11 Q Yeah. Here. I've highlighted it on  12 this one. I'll just let you look. Looks like  13 the second entry on page 17.  14 A Okay. I've got it. Sure.  15 Q And the source document for that entry  16 is J&amp;J-74.  17 A Right.  18 Q Okay. If you look at Tab 8, do you  19 agree with me that that's the source document?  20 MS. O'DELL:  21 Tab 8?  22 MR. FROST:  23 Tab 8, yes. Oh, sorry. Tab 6. Looked  24 like an 8 as I was glancing at it.</p>	<p>1 that D-GI is an industrial product? It's not a  2 cosmetic talcum powder?  3 A Right.  4 Q All right. If you turn to page 15.  5 Oh, sorry. 14. About halfway down 14, there's a  6 document or there's an entry on the chart,  7 7-7-1971. And the what was tested column shows  8 that it was talc product 344-L?  9 A Right.  10 Q Okay. If you look at Tab 8, there's a  11 document JNJAZ55-6089 that appears to be -- you  12 know, it's the July 7, '71, letter that talks  13 about 344-L testing. Do you agree?  14 MS. O'DELL:  15 Jack, can you give us a moment?  16 MR. FROST:  17 Sure.  18 MS. O'DELL:  19 Because we have it as a different --  20 MR. FROST:  21 Yeah. I was gonna say, you have the --  22 that's fine. If you can find the one you have,  23 that's great.  24 MS. O'DELL:</p>
Page 375	Page 377
<p>1 Q Tab 6.  2 A Okay.  3 Q And if you look at the highlighted  4 portion of that document, which is highlighted on  5 the original, it notes that the sample is DG --  6 D-GI; correct?  7 A Yes.  8 Q In which they found the fibrous  9 asbestiform materials.  10 If you look at Tab 7, this is a  11 document that's Bates stamped JNJMX682659.  12 A Okay.  13 Q Third paragraph down, it states, "The  14 samples represented both the industrial minerals  15 produced at the Gassetts," and it says "GI" in  16 parentheses.  17 A Right.  18 Q Okay. And then if you skip down --  19 A Yeah. I, incidentally, I picked this  20 one up.  21 Q This is the one you picked up?  22 A I -- well, it's one of the ones I  23 picked up.  24 Q All right. Do you agree with me, then,</p>	<p>1 Yeah. Just -- and it may be the same  2 document, but we identified it differently, so  3 just give us just a minute --  4 MR. FROST:  5 Yeah. That's fine.  6 MS. O'DELL:  7 -- to check the Bates number.  8 MR. FROST:  9 Of course, the sticker's over the Bates  10 number; right?  11 MS. O'DELL:  12 Never helpful.  13 I believe that to be the same one.  14 MR. FROST:  15 Okay.  16 MS. O'DELL:  17 Thank you.  18 MR. FROST:  19 Q Okay. And this is a report from  20 Colorado Schools of Mines regarding this sample  21 344-L?  22 A Right.  23 Q Are you aware that the Colorado School  24 of Mines issued a subsequent report on retesting</p>

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<p style="text-align: right;">Page 378</p> <p>1 of these same samples?</p> <p>2 A No.</p> <p>3 Q Turn to Tab 9.</p> <p>4 A I say I'm not. I -- I don't</p> <p>5 remember -- I don't remember seeing it. If it --</p> <p>6 if it contradicted this one, then I would have</p> <p>7 likely removed it from the table. So --</p> <p>8 Q Okay.</p> <p>9 A -- I either don't remember it or didn't</p> <p>10 see it.</p> <p>11 Q Okay. That's fair.</p> <p>12 Go on and turn to Tab 9. It's a</p> <p>13 document Bates-stamped JNJAZ55-3828.</p> <p>14 A Where was that in the table?</p> <p>15 Q This particular document?</p> <p>16 A Yeah. Are you referring to an entry in</p> <p>17 the table?</p> <p>18 Q It's not. I'm gonna -- this document</p> <p>19 refers -- this is the retest that I was talking</p> <p>20 about from Colorado School of Mines.</p> <p>21 A Oh, okay. Sure.</p> <p>22 MS. O'DELL:</p> <p>23 And if you haven't seen the document,</p> <p>24 take your time --</p>	<p style="text-align: right;">Page 380</p> <p>1 contamination from the standard asbestos</p> <p>2 samples."</p> <p>3 A Right.</p> <p>4 Q So, based on this, obviously, you know,</p> <p>5 we can't determine whether or not the sample</p> <p>6 344-L on the chart, you know, is an actual</p> <p>7 finding of asbestos in the talcum powder. Would</p> <p>8 you -- would you agree with that statement?</p> <p>9 MS. O'DELL:</p> <p>10 Object to form.</p> <p>11 A Hang on. I'm reading that third</p> <p>12 paragraph.</p> <p>13 MR. FROST:</p> <p>14 Q Sure.</p> <p>15 A Yeah.</p> <p>16 Q Okay.</p> <p>17 A Okay.</p> <p>18 Q Page 15, the second notation, 9-6-1972,</p> <p>19 J&amp;J-31.</p> <p>20 A Right.</p> <p>21 Q And the source document is noted as</p> <p>22 J&amp;J -- yeah, J&amp;J-31.</p> <p>23 A Right.</p> <p>24 Q Turn to Tab 12. You'll agree with me</p>
<p style="text-align: right;">Page 379</p> <p>1 MR. FROST:</p> <p>2 Q I was gonna say take your time to read</p> <p>3 it. I believe it's pretty short.</p> <p>4 A Yeah.</p> <p>5 Q Actually, very short.</p> <p>6 A There they go again, "within our limits</p> <p>7 of detectability."</p> <p>8 Right. Okay.</p> <p>9 Q You're reading from the middle of</p> <p>10 paragraph 1?</p> <p>11 A I'm reading --</p> <p>12 Q The numbered paragraph 1?</p> <p>13 A I'm reading the last sentence of the</p> <p>14 second full paragraph.</p> <p>15 Q Yeah.</p> <p>16 So, before that, it states "Subsequent</p> <p>17 x-ray work" --</p> <p>18 A Right.</p> <p>19 Q -- "on the 6-month product samples on</p> <p>20 the 344-L product sample shows no definite</p> <p>21 indications of any asbestos-type minerals within</p> <p>22 our limits of detectability."</p> <p>23 A Right.</p> <p>24 Q "The trace amounts I saw were evidently</p>	<p style="text-align: right;">Page 381</p> <p>1 that appears to be the source document, that</p> <p>2 J&amp;J-31?</p> <p>3 A Right.</p> <p>4 Q If you turn to page 4 of 7.</p> <p>5 A Okay.</p> <p>6 Q So the sample numbers that have</p> <p>7 chrysotile findings you agree are 133, 134, 137,</p> <p>8 138, and then, if you turn to the next page, 84?</p> <p>9 A Read those numbers again.</p> <p>10 Q Sure. 133, 134 --</p> <p>11 A Okay.</p> <p>12 Q -- then 137 and 138 and 84.</p> <p>13 A Right.</p> <p>14 Q Turn back -- or turn to Tab 11, which</p> <p>15 is a document dated January 7th, 1976. You can</p> <p>16 read the letter. But, effectively, this is a</p> <p>17 retest of some of the various samples by</p> <p>18 Dr. Lewin; correct?</p> <p>19 A Correct.</p> <p>20 Q If you turn to -- one, two, three --</p> <p>21 the fourth page. So if you see -- if you look at</p> <p>22 84 under chrysotile, there's a question mark.</p> <p>23 Then if you look at 133, 134, 137 and 138 under</p> <p>24 chrysotile, it's now marked "nondetect."</p>

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<p style="text-align: right;">Page 382</p> <p>1 A Right. I see that. Uh-huh.  2 Q So, again, just like the other  3 document, based on the retesting, you know, we  4 can't say one way or the other whether there was  5 actually asbestos in that sample; correct?  6 MS. O'DELL:  7 Object to the form.  8 A Correct.  9 MR. FROST:  10 Q Now, I know we've said this lots of  11 times, and I apologize, but not a doctor, not a  12 toxicologist; correct?  13 A Correct.  14 Q And, because of that, you can't testify  15 to a reasonable degree of scientific certainty  16 that any individual container of talcum powder  17 has sufficient asbestos in it to cause ovarian  18 cancer; correct?  19 A Correct.  20 MS. O'DELL:  21 Object to the form.  22 MR. FROST:  23 Q Okay. And same thing. You can't  24 testify that any particular container of talcum</p>	<p style="text-align: right;">Page 384</p> <p>1 me before, you know, sitting here today, you  2 can't tell me that every single one of these --  3 you know, any one of the ones that are left  4 would, you know, also be indicative of something  5 that actually ended up in talcum powder; correct?  6 MS. O'DELL:  7 Object to the form.  8 A Well, it depends on what's being  9 analyzed. If some of it is the finished product,  10 then it's the finished product.  11 MR. FROST:  12 Q Okay.  13 A If not, then, you know, it depends on  14 where the sample was collected. If it was  15 collected at the mine, then that's one thing. If  16 it was collected coming out of the flotation  17 circuit, well, you know, maybe it did get --  18 probably it got in.  19 Q Okay.  20 A I'm not in the business of throwing --  21 throwing good product away.  22 Q And you also -- you can't tell me,  23 sitting here, that there aren't other documents  24 that may call into question or contradict some of</p>
<p style="text-align: right;">Page 383</p> <p>1 powder has sufficient asbestos in it to cause  2 mesothelioma; correct?  3 MS. O'DELL:  4 Object to the form.  5 A That's correct. You know, you -- the  6 term "sufficient" is -- is an interesting one in  7 your question. I don't know that anybody on  8 earth knows that answer.  9 MR. FROST:  10 Q Okay.  11 A Can -- can say that.  12 Q But that's certainly not an area  13 that -- it's not an area you've studied --  14 A Right.  15 Q -- or are qualified in.  16 And, again, I think I've now pointed  17 out five, I believe --  18 A Yes.  19 Q -- examples of, you know, sort of --  20 I'll call them inaccuracies, you know, but --  21 A Glitches.  22 Q -- notations on the chart, you know,  23 that we can't say whether or not are actually  24 asbestos in the product. And I believe you told</p>	<p style="text-align: right;">Page 385</p> <p>1 the other testing results here; correct?  2 MS. O'DELL:  3 Object.  4 MR. FROST:  5 Q The -- the testing results listed here  6 were based on, you know, your best efforts and  7 reviewing the documents you had available at the  8 time; correct?  9 MS. O'DELL:  10 Objection. Object to the form.  11 A Yeah. The table is my best effort at  12 putting together information from the documents  13 that I had. That -- that statement's accurate.  14 MR. FROST:  15 Q Okay. Now, have you reviewed  16 Dr. Longo's reports that have been issued in this  17 case?  18 A I'm not sure I've seen all of them.  19 Q You've reviewed some of the Longo  20 reports, at least?  21 A Yes.  22 Q Okay. And are you -- are you relying  23 on the Longo test results as part of the basis  24 for your opinions in these cases?</p>

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<p style="text-align: right;">Page 386</p> <p>1 A Not really. I mentioned him a couple 2 of times. But I got -- I got his report, his -- 3 I mean, the great big huge report -- just a few 4 days ago. 5 Q Oh, okay. So it's -- 6 A I'd seen the introductory materials and 7 some of the earlier reports he had. 8 Q But you're not specifically relying on 9 Longo's testing and his testing methodologies and 10 things like that for the basis of your opinions 11 in this case? 12 MS. O'DELL: 13 Object to the form. 14 A It is certainly part of the big 15 picture. 16 MR. FROST: 17 Q You're not here to offer any opinions 18 that his testing methodologies were inadequate or 19 that, you know, his preparation procedures and 20 things like that, they -- that's -- that's not 21 part of the opinions you're offering in this 22 case, are they? 23 A No. 24 Q Okay.</p>	<p style="text-align: right;">Page 388</p> <p>1 subject. 2 VIDEOGRAPHER: 3 Going off the record. The time is 4:13 4 p.m. 5 (OFF THE RECORD.) 6 VIDEOGRAPHER: 7 We're back on the record. The time is 8 4:40 p.m. 9 MR. FROST: 10 Q Okay. I believe we were turning to 11 page 22 of your report. No. Page 23. 12 Did your report get lost somewhere? 13 A Yeah. I'm looking for yours with the 14 tabs on it. 15 Q Oh. That's the binder on the bottom. 16 MS. O'DELL: 17 Do you need it? 18 MR. FROST: 19 We're gonna turn to it next, so it's a 20 good thing you have it. 21 Q Okay. So you see the 5-25-1972 22 notation under the chart regarding fibrous talc? 23 And it notes the source document is JNJ238826, 24 248023?</p>
<p style="text-align: right;">Page 387</p> <p>1 A I did read -- I did read his methods. 2 They seem to be up to snuff. 3 Q Okay. You didn't do any, for example, 4 calculations of BSAED dispersion patterns -- 5 A No. 6 Q -- or you didn't try to verify any of 7 his test results? 8 A No. No, no, no. I'm not sure how I 9 would have. 10 Q That's -- that's not your area of 11 expertise; correct? 12 A Nor do I have the equipment. 13 Q Well, that's a fair point, too. 14 A Yeah. 15 Q Turning to page 20 -- 16 Are these chronological? They are. 17 Okay. 18 MS. O'DELL: 19 Hey, Jack. We've been going a 20 hundred -- hour and 15 minutes. Can we take a 21 short break? 22 MR. FROST: 23 Yeah. We can take a break now. This 24 works well. I was moving on to a different</p>	<p style="text-align: right;">Page 389</p> <p>1 A Right. 2 Q Turn to Tab 13. 3 MS. O'DELL: 4 You said 5-25-1972? 5 MR. FROST: 6 Yes. It's on page 23 of his report. 7 MS. O'DELL: 8 Okay. So you're not talking about the 9 asbestos table. You're talking about the fibrous 10 talc table. 11 MR. FROST: 12 Yeah, the fibrous talc table. 13 MS. O'DELL: 14 Okay. All right. 15 MR. FROST: 16 Q Okay. Do you agree with me these are 17 the two source documents? 18 A I think so. 19 Q And they're both referring to sample 20 FD-14? 21 A I think that they are. Sure. 22 Q All right. 23 A I mean, I've looked at the first one of 24 these.</p>

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<p style="text-align: right;">Page 390</p> <p>1 Are both documents behind the same tab?</p> <p>2 Q They are. There's a blue page</p> <p>3 separating the two.</p> <p>4 A Oh, okay. Thank you. Gotcha. Okay.</p> <p>5 Q And you'll also agree with me that</p> <p>6 they're talking -- the FD-14 seems to have been</p> <p>7 tested by a Dr. W. Smith at Fairleigh Dickinson</p> <p>8 University?</p> <p>9 A Correct.</p> <p>10 Q Okay. Turn to --</p> <p>11 A Wait a minute.</p> <p>12 MS. O'DELL:</p> <p>13 Dr. Smith? Is that what you were --</p> <p>14 MR. FROST:</p> <p>15 Q Dr. W. Smith, Fairleigh Dickinson</p> <p>16 University.</p> <p>17 Both of these are Johnson &amp; Johnson</p> <p>18 documents, but they're talking about the</p> <p>19 Dr. W. Smith testing of the tremolite talc,</p> <p>20 FD-14.</p> <p>21 Do you agree with that statement?</p> <p>22 A Okay. I was looking for Smith's name.</p> <p>23 I remember seeing Rolle and Goudie and --</p> <p>24 Q If you look at the first document, the</p>	<p style="text-align: right;">Page 392</p> <p>1 Drs. Gamble and Gibbs --</p> <p>2 A Correct.</p> <p>3 Q -- entitled "An evaluation of the risks</p> <p>4 of lung cancer and mesothelioma from exposure to</p> <p>5 amphibole cleavage fragments"?</p> <p>6 A Correct.</p> <p>7 Q You can feel free to read the paper,</p> <p>8 but I'm gonna direct your attention to page 23 of</p> <p>9 33.</p> <p>10 A Oh, great. Okay. All right.</p> <p>11 Q Okay. Second column, looks like the</p> <p>12 second paragraph down, the paragraph starts,</p> <p>13 "Samples used in experimental studies."</p> <p>14 A Page 23 of 33?</p> <p>15 Q Yep. On the second column.</p> <p>16 A Second column being the right-hand</p> <p>17 column?</p> <p>18 Q Yeah. Then it starts right there. It</p> <p>19 says "Samples."</p> <p>20 A Okay.</p> <p>21 Q About halfway down in that paragraph --</p> <p>22 A Right.</p> <p>23 Q -- the sentence reads, "On the other</p> <p>24 hand, there are several studies of tremolitic</p>
<p style="text-align: right;">Page 391</p> <p>1 238826 --</p> <p>2 A Right.</p> <p>3 Q -- at the top, it says, "Subject,</p> <p>4 Characterization of Tremolite Talc, FD-14,</p> <p>5 Dr. W. Smith --</p> <p>6 A Oh. Oh, yeah.</p> <p>7 Q -- Fairleigh Dickinson University.</p> <p>8 A Right. I've got him. Yep. Yep. Yep.</p> <p>9 Sure.</p> <p>10 Q All right. Turn to Tab 14.</p> <p>11 A Okay.</p> <p>12 Q It's a letter dated March 15th, 1972,</p> <p>13 Bates stamped JNJ346879.</p> <p>14 A Okay.</p> <p>15 Q And, again, it's from -- you know,</p> <p>16 second sentence down says, "As you may remember</p> <p>17 from my brief conversation with you, we are</p> <p>18 presently analyzing a talc used by</p> <p>19 Dr. W. E. Smith in his animal testing. Could you</p> <p>20 please have the EM work done on this talc labeled</p> <p>21 FD-14?"</p> <p>22 A Sure.</p> <p>23 Q Okay. If you turn to Tab number 15,</p> <p>24 this is a paper published on October 22, 2007, by</p>	<p style="text-align: right;">Page 393</p> <p>1 talc samples from the Gouverneur mine in New York</p> <p>2 State." And the second one listed is FD-14 used</p> <p>3 by Dr. Smith, 1979. Is that correct?</p> <p>4 MS. O'DELL:</p> <p>5 That's what it states.</p> <p>6 MR. FROST:</p> <p>7 Q Or did I -- did I read that correctly?</p> <p>8 A I think you did.</p> <p>9 Q Okay. And, by this, it indicates that</p> <p>10 the tremolitic talc tested by Dr. Smith that's</p> <p>11 FD-14 is actually a Gouverneur mine sample;</p> <p>12 correct?</p> <p>13 MS. O'DELL:</p> <p>14 Object to the form.</p> <p>15 A Unless there's a peculiar duplication</p> <p>16 of numbers.</p> <p>17 MR. FROST:</p> <p>18 Q It certainly seems to indicate that;</p> <p>19 correct?</p> <p>20 A It would suggest that.</p> <p>21 Q Okay. If you turn to page 25 of your</p> <p>22 report, again on the fiber -- fibrous talc chart,</p> <p>23 an entry for 7-29-1975. And it indicates</p> <p>24 document JNJL6127053.</p>

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<p style="text-align: right;">Page 394</p> <p>1 Do you see where I am?</p> <p>2 A Yeah, I've got it.</p> <p>3 Q Okay. And if you turn to Tab 16 in the</p> <p>4 binder that's Exhibit 31.</p> <p>5 A Okay.</p> <p>6 Q You agree with me that this is the</p> <p>7 source document for the entry on the chart;</p> <p>8 correct?</p> <p>9 A I believe it's the right number.</p> <p>10 Q Okay. Do you see up in the upper</p> <p>11 left-hand corner it says "W. Minerals, Ludlow</p> <p>12 36"?</p> <p>13 A Yes.</p> <p>14 Q Okay. And if you turn to Tab 17, which</p> <p>15 is a document Bates-stamped Imerys 013723.</p> <p>16 A Uh-huh.</p> <p>17 Q And if you turn to the second page,</p> <p>18 fourth entry down, it says "Ludlow, Vermont."</p> <p>19 A Got it.</p> <p>20 Q Okay. And it notes Grade 36 here.</p> <p>21 A I see Grade 36.</p> <p>22 Q Okay. And if you look down --</p> <p>23 So the production location of this is</p> <p>24 Ludlow, Vermont; correct? And then it says</p>	<p style="text-align: right;">Page 396</p> <p>1 still fibrous talc.</p> <p>2 Q Okay. But that's different than the</p> <p>3 talc that was sourced for Johnson &amp; Johnson</p> <p>4 talcum powder; correct?</p> <p>5 A It may --</p> <p>6 MS. O'DELL:</p> <p>7 Object to the form.</p> <p>8 A It may or may not be. I mean, if</p> <p>9 they're coming from --</p> <p>10 They list the mines, and they're the</p> <p>11 same mines that were producing the cosmetic talc,</p> <p>12 and there's no reason to think that -- that even</p> <p>13 though we've got lots of analyses that show</p> <p>14 fibrous talc in cosmetic talc that there</p> <p>15 shouldn't be any fibrous talc in industrial talc.</p> <p>16 It...</p> <p>17 MR. FROST:</p> <p>18 Q Okay. But, based on this, this</p> <p>19 certainly isn't evidence that there was fibrous</p> <p>20 talc that ended up in a bottle of Johnson's -- in</p> <p>21 Johnson &amp; Johnson's talcum powder; correct?</p> <p>22 MS. O'DELL:</p> <p>23 Object to the form.</p> <p>24 A That way, no.</p>
<p style="text-align: right;">Page 395</p> <p>1 "Grade 36."</p> <p>2 A Correct.</p> <p>3 Q Okay. And if you look on the next</p> <p>4 page, that is different than the production</p> <p>5 location being Windsor, Vermont -- right? --</p> <p>6 which has the Grade 65 talc, which we know is the</p> <p>7 cosmetic talc?</p> <p>8 A Okay.</p> <p>9 Q And we know that the cosmetic talc came</p> <p>10 from the Windsor, Vermont, mill; correct?</p> <p>11 A It should have, yes.</p> <p>12 Q All right. And that's separate,</p> <p>13 according to this document, from the Ludlow,</p> <p>14 Vermont, mill; correct?</p> <p>15 MS. O'DELL:</p> <p>16 Object to the form.</p> <p>17 A Yes.</p> <p>18 MR. FROST:</p> <p>19 Q Okay.</p> <p>20 A I think that the point of all this is</p> <p>21 that the -- the mill feed at Ludlow had fibrous</p> <p>22 talc in it.</p> <p>23 Q Exactly.</p> <p>24 A Whether it was cosmetic or not, it was</p>	<p style="text-align: right;">Page 397</p> <p>1 MR. FROST:</p> <p>2 Q Okay. And, again, you know, we've</p> <p>3 already covered this before, but you can't tell</p> <p>4 me to a reasonable degree of scientific certainty</p> <p>5 that any individual container of talcum powder</p> <p>6 may have contained a sufficient number of -- or a</p> <p>7 sufficient amount of fibrous talc to cause any</p> <p>8 human disease; correct?</p> <p>9 MS. O'DELL:</p> <p>10 Object to the form.</p> <p>11 A I've never seen a paper that said how</p> <p>12 much you needed to cause any kind of a problem.</p> <p>13 MR. FROST:</p> <p>14 Q Okay. And that's outside of your area</p> <p>15 of expertise, anyway.</p> <p>16 A Correct.</p> <p>17 Q Okay. Now, again, you know, you've</p> <p>18 also noted on here, we've seen at various points</p> <p>19 nickel, chromium, cobalt and arsenic, I believe,</p> <p>20 as well. And you'd agree with me that not all of</p> <p>21 the entries on the charts for these various</p> <p>22 different chemicals are, in fact, finished talcum</p> <p>23 powder; correct?</p> <p>24 MS. O'DELL:</p>

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<p style="text-align: right;">Page 398</p> <p>1 Object to the form.</p> <p>2 A Some are. Some are not.</p> <p>3 MR. FROST:</p> <p>4 Q Okay. And a lot of them, you know, are</p> <p>5 ore samples, things of that nature?</p> <p>6 MS. O'DELL:</p> <p>7 Object to the form. Object to the</p> <p>8 form, "a lot." What does that mean?</p> <p>9 MR. FROST:</p> <p>10 Q Many of them? You know, a certain</p> <p>11 number of them come from ore samples; correct?</p> <p>12 MS. O'DELL:</p> <p>13 Object to the form.</p> <p>14 A I would say that -- that ore is</p> <p>15 converted to finished product, and there's no</p> <p>16 indication that there's been any attempt to get</p> <p>17 those metals out. So that's my answer.</p> <p>18 MR. FROST:</p> <p>19 Q You'd agreed with me, if done properly,</p> <p>20 beneficiation could be used to lower the amounts</p> <p>21 of heavy metals that may appear in a finished</p> <p>22 product; correct?</p> <p>23 MS. O'DELL:</p> <p>24 Object to the form.</p>	<p style="text-align: right;">Page 400</p> <p>1 any Vermont talc with any other Vermont talc is</p> <p>2 gonna do nothing to lower potential heavy metal</p> <p>3 values found in the finished product?</p> <p>4 A It depends on whether you're including</p> <p>5 arsenic in there as a -- as a heavy metal. I</p> <p>6 don't -- I don't include arsenic as a heavy</p> <p>7 metal. But if you want to include it in there,</p> <p>8 blending can reduce the arsenic level.</p> <p>9 Q Okay. And arsenic's the only one that</p> <p>10 you believe that blending can reduce?</p> <p>11 A Haven't seen any indication that</p> <p>12 blending with anything else would -- would reduce</p> <p>13 those numbers.</p> <p>14 Q You also believe that there's no way to</p> <p>15 use beneficiation to, say, remove chlorite from</p> <p>16 talc?</p> <p>17 A I think that that could probably be</p> <p>18 done. And, in fact, my guess is that some of</p> <p>19 that is done. I think it's tough, because in</p> <p>20 a -- in a flotation plant, those two minerals</p> <p>21 tend to respond similarly. And, so, when you --</p> <p>22 when you -- they were using a methyl isobutyl</p> <p>23 something or another in one of the plants. That</p> <p>24 frothing agent is excellent for talc, but I think</p>
<p style="text-align: right;">Page 399</p> <p>1 A I don't think that there's been a</p> <p>2 single study that's indicated that.</p> <p>3 MR. FROST:</p> <p>4 Q And would you agree with me that</p> <p>5 blending is a technique that can be used to lower</p> <p>6 total heavy metal counts by using ores from</p> <p>7 different areas that have different</p> <p>8 concentrations of heavy metals?</p> <p>9 MS. O'DELL:</p> <p>10 Object to the form.</p> <p>11 A If I was asked to produce a blended</p> <p>12 talc that would lower the heavy metals, it would</p> <p>13 have to be blending Vermont talc with a</p> <p>14 non-Vermont source.</p> <p>15 Say we know that the metal numbers are</p> <p>16 low in Chinese talc. So if you wanted to have 50</p> <p>17 percent Chinese talc, 50 percent Ludlow talc,</p> <p>18 then your total metals are gonna go down.</p> <p>19 Q Okay.</p> <p>20 A So blending can do that. But there's</p> <p>21 no indication that anything like that was ever</p> <p>22 done other than blending Vermont talc with</p> <p>23 Vermont talc.</p> <p>24 Q And your opinion is that blending of</p>	<p style="text-align: right;">Page 401</p> <p>1 it's also pretty good for chlorite, too. I think</p> <p>2 that by playing around, you might come up with a</p> <p>3 frothing agent or an agent that might help pull</p> <p>4 chlorite out if you wanted to add a separate</p> <p>5 circuit.</p> <p>6 Q Okay.</p> <p>7 A But I don't know that that's true.</p> <p>8 This is -- this is -- based on what I've read and</p> <p>9 looked at, you might be able to do that. You'd</p> <p>10 have to try. It'd have to be bench -- bench</p> <p>11 scale testing.</p> <p>12 Q Okay. So you'd agree with me that,</p> <p>13 hypothetically, beneficiation, done properly,</p> <p>14 could remove the chlorite which would drop the</p> <p>15 levels of heavy metals contained in the talc?</p> <p>16 MS. O'DELL:</p> <p>17 Object to the form.</p> <p>18 A I would say that it might.</p> <p>19 MR. FROST:</p> <p>20 Q And, again, if I were to ask you --</p> <p>21 And I'll ask it as one question, which</p> <p>22 I know is compound, so there'll be an objection.</p> <p>23 But if I were to ask you with respect</p> <p>24 to arsenic, cobalt, chromium, nickel --</p>

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<p style="text-align: right;">Page 402</p> <p>1 I believe that's all of them.</p> <p>2 A Yep. That's it.</p> <p>3 Q Okay. You couldn't tell me to any</p> <p>4 degree of scientific certainty that any</p> <p>5 individual container would contain enough of</p> <p>6 these particular heavy metals to cause human</p> <p>7 disease; correct?</p> <p>8 MS. O'DELL:</p> <p>9 Object to the form.</p> <p>10 A I'm not an expert in human disease.</p> <p>11 MR. FROST:</p> <p>12 Q And are you also aware that chromium is</p> <p>13 a fairly common --</p> <p>14 Well, strike that.</p> <p>15 Are you aware there's two different</p> <p>16 types of chromium? Well, there's more than, but</p> <p>17 there are two different types of chromium that</p> <p>18 are generally recognized to be associated with</p> <p>19 rocks?</p> <p>20 A Right. Yes.</p> <p>21 Q And that's chromium 3 and chromium 6?</p> <p>22 A Correct.</p> <p>23 Q Okay. And you're also aware that</p> <p>24 chromium 6 is the one that causes concern;</p>	<p style="text-align: right;">Page 404</p> <p>1 A It's -- the -- the technique used by</p> <p>2 Johnson &amp; Johnson would not distinguish between</p> <p>3 the two, and their -- their specs don't try to</p> <p>4 distinguish between the two.</p> <p>5 They have a -- they have a report --</p> <p>6 it's actually quite -- quite interesting -- where</p> <p>7 they have tried to determine how much of each was</p> <p>8 present. And I didn't reference it, but I've got</p> <p>9 it somewhere. But there was an attempt probably</p> <p>10 back in the late 1970s to look at this.</p> <p>11 Q You'd agree with me, based on the</p> <p>12 sampling results that you rely on for your</p> <p>13 report, you can't tell whether or not it's cobalt</p> <p>14 3 versus -- I'm sorry --</p> <p>15 A Chromium.</p> <p>16 Q -- chromium 3 versus chromium 6 in the</p> <p>17 talc; correct?</p> <p>18 A They don't report it that way.</p> <p>19 MS. O'DELL:</p> <p>20 Object to the form.</p> <p>21 A They report total chromium.</p> <p>22 MR. FROST:</p> <p>23 Q Okay.</p> <p>24 A Pardon me. I'm not even sure they're</p>
<p style="text-align: right;">Page 403</p> <p>1 correct?</p> <p>2 MS. O'DELL:</p> <p>3 Object to the form.</p> <p>4 A Yes. Plus 6 chromium is -- is, you</p> <p>5 know, considered to be, you know, very bad.</p> <p>6 MR. FROST:</p> <p>7 Q Okay. And, in fact, chromium 3 is an</p> <p>8 essential element to human bodies and everything</p> <p>9 else.</p> <p>10 MS. O'DELL:</p> <p>11 Object to the form.</p> <p>12 MR. FROST:</p> <p>13 Q It's something human bodies need to</p> <p>14 function.</p> <p>15 A Uh-huh. Yes.</p> <p>16 Q And you're also aware that cobalt 3 is</p> <p>17 a common element found in rock.</p> <p>18 A Cobalt 3?</p> <p>19 Q Sorry. Chromium 3.</p> <p>20 A Yes.</p> <p>21 Q Okay. And you'll agree with me that</p> <p>22 the chart and the testing results don't designate</p> <p>23 whether or not it's chromium 3 versus chromium 6</p> <p>24 they're finding in the talc samples; correct?</p>	<p style="text-align: right;">Page 405</p> <p>1 reporting total chromium because that -- that is</p> <p>2 based on what extraction technique they used.</p> <p>3 Q Okay. I'm gonna switch gears and turn</p> <p>4 to Exhibit 4, which are your invoices. And one</p> <p>5 thing I noticed as I was going through,</p> <p>6 variously, invoices have notations with meeting</p> <p>7 with, like, for example, invoice number 5,</p> <p>8 meeting with potential expert witnesses, Brian</p> <p>9 Fowler and Don Burns.</p> <p>10 A Right.</p> <p>11 Q Who are Brian Fowler and Don Burns?</p> <p>12 A Don Burns is the chief geologist for</p> <p>13 Omnia in Vermont, and he and I are friends.</p> <p>14 And Brian Fowler, remember the citation</p> <p>15 of Chidester, Billings, and Cady?</p> <p>16 Q Uh-huh.</p> <p>17 A Brian Fowler's father-in-law was Marlin</p> <p>18 Billings, the Billings in that report. And he is</p> <p>19 a consulting geologist that lives in</p> <p>20 New Hampshire, right across the line, and he owns</p> <p>21 or owned a company called North American</p> <p>22 Preserve -- Reserve that did an awful lot of work</p> <p>23 up there. And -- but, unfortunately, not much of</p> <p>24 it was related to talc mining, and I didn't know</p>

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<p style="text-align: right;">Page 406</p> <p>1 that.</p> <p>2 And, so, at one point, since I was up</p> <p>3 there, I said, "I'm gonna look up Brian." Brian</p> <p>4 Fowler had worked down here in Alabama. That's</p> <p>5 how I knew him.</p> <p>6 So I looked him up, and he said, you</p> <p>7 know, "I don't know enough about it to be of any</p> <p>8 help."</p> <p>9 Q Okay. So that was the nature of your</p> <p>10 conversation with Brian Fowler is just --</p> <p>11 A Yeah, sure.</p> <p>12 Q -- I'm working on this; would you be</p> <p>13 interested; and he said, "Unfortunately, I'm not</p> <p>14 qualified"?</p> <p>15 A Same with Don burns, and his answer was</p> <p>16 "Hell, no."</p> <p>17 Q I was gonna say. So who's Don Burns?</p> <p>18 A He's the chief geologist for Omnia.</p> <p>19 Q Okay.</p> <p>20 A Their account producer there.</p> <p>21 Q And did Mr. Burns express to you why he</p> <p>22 was not interested in --</p> <p>23 A He's retiring, didn't want to be</p> <p>24 involved. In fact, he's probably retired now.</p>	<p style="text-align: right;">Page 408</p> <p>1 Q Okay. And I take it that paper had</p> <p>2 nothing to do with talc, this litigation.</p> <p>3 A Absolutely. But he gave me something.</p> <p>4 Q It was more of an interesting piece?</p> <p>5 A Yeah. Very interesting.</p> <p>6 Q Well, sir, thank you very much. That's</p> <p>7 all the questions I have for right now. I'm</p> <p>8 gonna yield my time at this point to my colleague</p> <p>9 from Imerys, but I do reserve the right to come</p> <p>10 back and ask a few questions if I find anything</p> <p>11 in my notes.</p> <p>12 A Sure.</p> <p>13 Can I add something? I misspoke</p> <p>14 earlier about Longo.</p> <p>15 Q Okay.</p> <p>16 A I had several copies of reports that he</p> <p>17 did, and I -- I actually had, I want to say,</p> <p>18 about 35 pages of that supplemental report that</p> <p>19 summarized, you know, the percent samples that --</p> <p>20 that had fibrous talc. And I did rely on that.</p> <p>21 But I didn't have the full 2,000 pages in front</p> <p>22 of me.</p> <p>23 Q Okay.</p> <p>24 A So I did -- I did use him some, but not</p>
<p style="text-align: right;">Page 407</p> <p>1 But he was, you know, looking at retirement a few</p> <p>2 months out. He said -- you know, he's gonna live</p> <p>3 in Proctorsville, Vermont, for the rest of his</p> <p>4 life, and he said he just didn't want to be</p> <p>5 involved. Okay.</p> <p>6 Q Okay. And did either Mr. Fowler or</p> <p>7 Mr. Burns provide you with any information that</p> <p>8 you relied on --</p> <p>9 A None.</p> <p>10 Q -- in drafting your opinions in this</p> <p>11 case?</p> <p>12 A None whatsoever.</p> <p>13 Q And did they provide you any documents</p> <p>14 or other information?</p> <p>15 A None. Well, Brian Fowler gave me a</p> <p>16 document related to --</p> <p>17 You know, New Hampshire's symbol is the</p> <p>18 old man in the mountain rock face.</p> <p>19 Q Uh-huh.</p> <p>20 A Well, it collapsed about ten years ago.</p> <p>21 It's gone. And Brian Fowler's company did the</p> <p>22 study that showed why the rock face collapsed.</p> <p>23 And he gave me the paper about that. And that's</p> <p>24 the only thing he gave me.</p>	<p style="text-align: right;">Page 409</p> <p>1 in terms of trying to analyze what he did.</p> <p>2 Q Okay. So is it fair to say your</p> <p>3 reliance on the Longo testing is with respect to</p> <p>4 the percentage of bottles that he found either</p> <p>5 asbestiform -- well, what he characterized as</p> <p>6 asbestiform minerals or fibrous talc?</p> <p>7 A It went through his methodology, which</p> <p>8 I thought was pretty interesting since he</p> <p>9 actually began to apply numbers to some of the</p> <p>10 data.</p> <p>11 Q Uh-huh.</p> <p>12 A Which was, I thought, an interesting</p> <p>13 thing.</p> <p>14 Q Okay. But I think we established</p> <p>15 before you didn't do anything to check the</p> <p>16 work --</p> <p>17 A No, no.</p> <p>18 Q -- or to analyze it.</p> <p>19 A But I think I kind of implied I didn't</p> <p>20 really look at it very much. But I -- I looked</p> <p>21 at the first half, first part of his report of</p> <p>22 the supplemental report.</p> <p>23 Q All right. That's all the questions I</p> <p>24 have for right now. We're gonna go off the</p>

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<p style="text-align: right;">Page 410</p> <p>1 record and I'll change seats with my colleague.  2 Thank you very much.  3 A Sure.  4 VIDEOGRAPHER:  5 Going off the record. The time is  6 5 p.m.  7 (OFF THE RECORD.)  8 VIDEOGRAPHER:  9 We're back on the record. The time is  10 5:01 p.m.  11 EXAMINATION  12 BY MR. FERGUSON:  13 Q Good afternoon, Dr. Cook. How are you?  14 A Fine.  15 Q We met briefly before the deposition  16 started.  17 A Yes.  18 Q My name is Ken Ferguson. Along with  19 Andrew Cary here to my right, we represent  20 Imerys. You understand that?  21 A Yes.  22 Q And I'm gonna ask you some questions  23 today regarding your testimony and your report.  24 Please make sure, as Mr. Frost told you, you</p>	<p style="text-align: right;">Page 412</p> <p>1 Q Let me ask you a few things  2 preliminarily. The one thing I noticed on your  3 CV is that you had a consultancy with Cyprus  4 Mines Corporation --  5 A Yes.  6 Q -- at some point. Can you tell us when  7 that was?  8 A 1971 and '72. And this was as a  9 consultant through a firm that I worked for.  10 Q And what firm were you working for at  11 that time?  12 A Lindgren Exploration Company.  13 Q And could you tell us the general  14 nature of your consultancy with Cyprus Mines  15 Corporation?  16 A Exploration for massive sulfites,  17 looking for copper.  18 Q So it was an exploration stage rather  19 than a mining stage like you've been talking  20 about today?  21 A Yes. It was exploration.  22 Q And how long did that consultancy with  23 Cyprus Mines continue, more or less?  24 A It -- it was full-time pretty much for</p>
<p style="text-align: right;">Page 411</p> <p>1 understand what I'm asking before you answer, and  2 then let me know if you don't, and I'll restate  3 the question. Fair enough?  4 A Fair enough.  5 Q Okay. And one thing that I think  6 everybody gets in a little trouble with in this  7 process, particularly if they haven't been  8 through it much before, is talking before the  9 person finishes asking the question.  10 A All right.  11 Q Because we all do that in normal  12 conversation. So if you'd do your best to just  13 wait till I finish my question, and then -- and  14 then answer, and then I think we can -- we can go  15 a little bit smoother. Fair enough?  16 A Fair.  17 MS. O'DELL:  18 I would just add give me a millisecond  19 between the question and the answer, and I'll  20 have my opportunity to object if I need to.  21 THE WITNESS:  22 Okay.  23 MR. FERGUSON:  24 Fair enough.</p>	<p style="text-align: right;">Page 413</p> <p>1 a year and a half, and then it was part-time.  2 And then I came to Auburn and it continued a  3 little bit.  4 But Cyprus, they -- they acquired  5 property where I was working, but in the end they  6 handed it off to Kennecott Copper and, you know,  7 the end result was a failed project. We didn't  8 find anything.  9 Q Any other consultancies with Cyprus  10 Mines Corporation?  11 A Not -- not under that name. You know,  12 Cyprus was sold to FI- -- Freeport-McMoRan,  13 somebody like that. And there were Cyprus  14 employees that moved over to Freeport. But I  15 never did any more work for them, although I --  16 you know, I was associated with their employees  17 even to this day.  18 Q And I take it you've never consulted  19 with Imerys?  20 A No. I have.  21 Q Okay. Tell me the nature of that  22 consultation.  23 A I -- I was a witness for them in a  24 sinkhole litigation at Sylacauga.</p>

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<p style="text-align: right;">Page 414</p> <p>1 Q I'm sorry. At what?</p> <p>2 A Sylacauga. It's the name of a town</p> <p>3 where Imerys has three operating quarries. They</p> <p>4 make fine ground ultra-white carbonate for paper</p> <p>5 coating and other -- other things.</p> <p>6 Q And when was that?</p> <p>7 A It's been within the last ten years.</p> <p>8 It was a -- this was a relationship that was</p> <p>9 probably a year and a half long. I think I was</p> <p>10 deposed twice.</p> <p>11 Q And how about Luzenac? Any</p> <p>12 consultancies with Luzenac?</p> <p>13 A No.</p> <p>14 Q How about Rio Tinto Minerals?</p> <p>15 A No.</p> <p>16 Q Let me change gears a little bit and</p> <p>17 ask you about a couple things in your report.</p> <p>18 A Sure.</p> <p>19 Q And I'll tell you, I'm kind of</p> <p>20 prioritizing since I -- I have limited time. I'd</p> <p>21 like to finish up relatively quickly here. And,</p> <p>22 so, I may skip around a little bit. It's not to</p> <p>23 confuse you.</p> <p>24 A I understand.</p>	<p style="text-align: right;">Page 416</p> <p>1 I just want him to understand that</p> <p>2 there's not another document other than what he</p> <p>3 has marked as exhibit -- it's been marked as</p> <p>4 Exhibit 1 and 2, that that red-line is something</p> <p>5 that you -- you've created.</p> <p>6 MR. FERGUSON:</p> <p>7 Fair enough. Yes. And I didn't mean</p> <p>8 to imply otherwise. So, yes.</p> <p>9 Q I just wanted to see what change you</p> <p>10 made, and there are some computer programs you</p> <p>11 can do. I think we -- we all do them on</p> <p>12 occasion.</p> <p>13 So are you with me on page 11?</p> <p>14 A I am on page 11.</p> <p>15 Q All right. And you see there's a</p> <p>16 paragraph that starts "serpentine asbestos"?</p> <p>17 A Yes.</p> <p>18 Q Do you see that?</p> <p>19 A Yes.</p> <p>20 Q And, in that paragraph, about midway</p> <p>21 through, I guess four lines down, you say, "In</p> <p>22 1991, Dr. Alice Blount reported the presence of</p> <p>23 asbestos needles and fibers in Vermont talc which</p> <p>24 she later confirmed to be J&amp;J baby powder."</p>
<p style="text-align: right;">Page 415</p> <p>1 Q So just make sure we're on the same</p> <p>2 page when you answer the questions. Fair enough?</p> <p>3 A Sure.</p> <p>4 Q And, also, I decided it would be smart</p> <p>5 to -- to copy or print your red-line version of</p> <p>6 your -- your report so I could see what changes</p> <p>7 you made, but it messed up the pagination. So if</p> <p>8 I get messed up there, you'll have to bear with</p> <p>9 me. Fair enough?</p> <p>10 A Fair.</p> <p>11 Q Can you go to page 11 of your report,</p> <p>12 please, sir?</p> <p>13 MS. O'DELL:</p> <p>14 What -- what red-line? Is that a</p> <p>15 red-line you created?</p> <p>16 MR. FERGUSON:</p> <p>17 No. It's your -- it's the red-line --</p> <p>18 yeah, yeah.</p> <p>19 MS. O'DELL:</p> <p>20 Because there was no red-lining --</p> <p>21 MR. FERGUSON:</p> <p>22 I understand. I just did a compare.</p> <p>23 That's all.</p> <p>24 MS. O'DELL:</p>	<p style="text-align: right;">Page 417</p> <p>1 And then you cite to Blount 1991 and</p> <p>2 her deposition. Is that correct?</p> <p>3 A Well, I think that it was -- what I've</p> <p>4 referenced there might have been an exhibit in</p> <p>5 Hopkins' deposition.</p> <p>6 Q Okay. Fair enough.</p> <p>7 And but you also, in your citation, say</p> <p>8 "Dep Alice Blount" --</p> <p>9 A Right.</p> <p>10 Q -- "Ph.D."</p> <p>11 A Right. I read her deposition.</p> <p>12 Q Okay.</p> <p>13 A She talked about it.</p> <p>14 Q All right. Now, did you read her 1991</p> <p>15 paper?</p> <p>16 A Yes, I did.</p> <p>17 Q And while you say in here that she</p> <p>18 later confirmed the presence of asbestos needles</p> <p>19 and fibers in what she later confirmed as J&amp;J</p> <p>20 baby powder, there's no reference to J&amp;J baby</p> <p>21 powder in her paper itself in 1991, is there?</p> <p>22 A I don't think so.</p> <p>23 Q And when you read her deposition --</p> <p>24 A I mean, I think she was very careful,</p>

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<p style="text-align: right;">Page 418</p> <p>1 really, not to identify what she was working 2 with. I think she gave, you know, numerical or 3 letters to her samples. 4 MS. O'DELL: 5 In the paper? 6 THE WITNESS: 7 Right. 8 I think that she was trying to, you 9 know, shield the sources. 10 MR. FERGUSON: 11 Q Okay. But in the paper, 12 Johnson &amp; Johnson baby powder was not identified? 13 A Correct. 14 Q And you say she later confirmed that a 15 sample was Johnson &amp; Johnson baby powder. 16 Correct? 17 A Correct. 18 Q Now, I have marked as -- it was already 19 marked as Exhibit 3 -- a folder with your notes, 20 and I've taken the liberty -- I hope it's okay -- 21 A Sure. 22 Q -- marking each page. There's a 3.1, 23 3.2, so we can identify what we're talking about. 24 Fair enough?</p>	<p style="text-align: right;">Page 420</p> <p>1 Q And we're gonna go through these notes 2 in more detail later so -- so we can understand 3 what they are, but I just wanted to hit this 4 point early on. 5 If you'd pass that back to me if you're 6 done. 7 A Sure. 8 Q That's all I wanted to ask you. 9 And then I wanted to ask you about 3.5, 10 which I will pass to Miss O'Dell first. 11 MS. O'DELL: 12 Thank you. 13 MR. FERGUSON: 14 Q Now, again, is that another page of 15 your notes? 16 A Yes. 17 Q Okay. And, if you wouldn't mind, can 18 you hand it -- since we just got it today, I 19 didn't make copies of it. 20 A Sure. 21 Q Can you hand it to me and let me ask 22 you a question or two? 23 You have a notation after page 53 that 24 says "date confusion, 1996 purchase versus 1991</p>
<p style="text-align: right;">Page 419</p> <p>1 A Fair enough. 2 Q Okay. And let me show you what I've 3 marked as Exhibit 3.2. 4 MS. O'DELL: 5 Can you do a round robin so I can -- 6 MR. FERGUSON: 7 Yeah. If I find -- 8 MS. O'DELL: 9 -- so I can -- 10 MR. FERGUSON: 11 Sure. 12 A Okay. 13 MR. FERGUSON: 14 Q And there's a reference to Alice Blount 15 at the top of that page; correct? 16 A Yes. 17 Q And what -- what does that say? I just 18 want to make sure I know what it means. 19 A It says "Add Alice Blount." 20 Q And, then, what does that mean? 21 A It simply meant that I needed to 22 include her in my report. 23 Q I see. 24 A That's all.</p>	<p style="text-align: right;">Page 421</p> <p>1 paper. Sample I-J&amp;J baby powder." 2 A Uh-huh. 3 Q Is that correct? Did I read that 4 correctly? 5 A Right. And I'm not sure that I wasn't 6 the one confused. But when I -- when I read -- 7 this was in her deposition. I believe these page 8 numbers refer to her deposition. And I think 9 that she corrected some information that she may 10 have misspoken. 11 Q But -- but you certainly, in reading 12 it, were confused about what she was talking 13 about; correct? 14 A Correct. 15 Q And you were confused about what she 16 was talking about with regard to the sample that 17 she was trying to identify; correct? 18 MS. O'DELL: 19 Object to the form. 20 A It was the dates. Only -- only the 21 dates. 22 MR. FERGUSON: 23 Q Okay. And you say in here 1991 versus 24 1996; correct?</p>

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<p style="text-align: right;">Page 422</p> <p>1 A Correct.</p> <p>2 Q Okay. Did that have to do with when</p> <p>3 she acquired the sample?</p> <p>4 A I think that that had to do with the</p> <p>5 date that she mentioned in her deposition, which</p> <p>6 was incorrect. Now, that's from my memory.</p> <p>7 Q And, then, you've written another note</p> <p>8 by page 57. And what does that note say?</p> <p>9 A You're asking me to read my own</p> <p>10 writing?</p> <p>11 Q If you don't mind.</p> <p>12 A Okay.</p> <p>13 Q I can take a shot at it, but you may</p> <p>14 have a better shot.</p> <p>15 A It says "Confusion concerning sample</p> <p>16 IDs."</p> <p>17 And, again, it was -- it was me that</p> <p>18 was confused. I had to go back and reread what</p> <p>19 she was saying, and there were a couple of</p> <p>20 handwritten exhibits, I think, in her deposition</p> <p>21 that -- that I had to look at two or three times.</p> <p>22 Q And would you agree that there was some</p> <p>23 confusion about when she purchased the particular</p> <p>24 sample that she was referencing and she had</p>	<p style="text-align: right;">Page 424</p> <p>1 Q And -- and, so, I want to understand</p> <p>2 that testimony. I think you and Mr. Frost talked</p> <p>3 a bit about that. You're -- you're saying that,</p> <p>4 for example, Mr. Downey noted in his deposition</p> <p>5 that the talc is asbestos-free. Is that correct?</p> <p>6 A I think so.</p> <p>7 Q Let's look at a portion of his</p> <p>8 deposition together. And if you'd go to your</p> <p>9 left, I believe, is a white binder that says</p> <p>10 "Downey."</p> <p>11 A Yeah. Okay.</p> <p>12 Q You've got it?</p> <p>13 A Yeah. Sure.</p> <p>14 Q Okay. And -- and, if you would, turn</p> <p>15 to Mr. Downey's deposition.</p> <p>16 A Okay.</p> <p>17 MS. O'DELL:</p> <p>18 Ken, when you get to wherever you're</p> <p>19 going, let me know the number. I can get there,</p> <p>20 but it may take me just a second.</p> <p>21 MR. FERGUSON:</p> <p>22 Sure. Yep. Yep. I have that. I'm</p> <p>23 trying to identify the pages on the computer.</p> <p>24 Oh, there it is.</p>
<p style="text-align: right;">Page 423</p> <p>1 tested?</p> <p>2 A I don't think --</p> <p>3 MS. O'DELL:</p> <p>4 Object to the form.</p> <p>5 A I don't think she was confused. I</p> <p>6 think I was confused.</p> <p>7 MR. FERGUSON:</p> <p>8 Q Let's talk about another issue, which</p> <p>9 is -- can you go to your report at page 41?</p> <p>10 A Got it.</p> <p>11 Q In the -- the -- well, it's one of</p> <p>12 those where I can't tell you when. There's a</p> <p>13 heading called "Testing Methodologies For</p> <p>14 Asbestos Were Inadequate."</p> <p>15 Correct?</p> <p>16 A Yes.</p> <p>17 Q Okay. And in, I believe, the first</p> <p>18 paragraph, the last sentence, it says,</p> <p>19 "Regardless, the specification for cosmetic talc</p> <p>20 as indicated in the Hopkins, Downey, and Pier</p> <p>21 depositions of 2018 is that the talc is</p> <p>22 asbestos-free."</p> <p>23 Correct?</p> <p>24 A Yes.</p>	<p style="text-align: right;">Page 425</p> <p>1 Q Okay. So -- so if you look at page</p> <p>2 96 --</p> <p>3 A Okay.</p> <p>4 Q So you see at -- starting at line 17 --</p> <p>5 A Uh-huh.</p> <p>6 Q -- the question by, I believe,</p> <p>7 Miss O'Dell, it says: "And 'Imerys Talc</p> <p>8 America.' I'm just going to go ahead, since I've</p> <p>9 done that much. 'RTM and Luzenac America was/is</p> <p>10 responsible for ensuring that the talc sold to</p> <p>11 J&amp;J was" -- since they're currently selling it --</p> <p>12 "is asbestos-free. Can we agree on that?"</p> <p>13 And then the answer, after an</p> <p>14 objection, is: "We test our product to ensure</p> <p>15 that it doesn't contain measurable asbestos, and</p> <p>16 that's what I can agree to."</p> <p>17 And that's what Mr. Downey answered.</p> <p>18 Correct?</p> <p>19 MS. O'DELL:</p> <p>20 Object to the form.</p> <p>21 A That's what he said here. I'm not sure</p> <p>22 this is the only point in his deposition that</p> <p>23 this topic appears.</p> <p>24 I would also like to add something to</p>

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<p style="text-align: right;">Page 426</p> <p>1 that. The concept of measurable asbestos is an 2 interesting one. There's a way to preconcentrate 3 samples that gives you a lot bigger opportunity 4 to detect small amounts of asbestos. And this 5 was pointed out in the -- in the '70s by both 6 Pooley, Colorado School of Mines, and even, I 7 believe, Dartmouth. And this idea of 8 preconcentration -- 9 Oh, and Alice Blount even -- that was 10 what she used. It was completely rejected for 11 reasons unknown. And it would have -- it would 12 have allowed a much lower detection limit. 13 And, so, it's easy to say, you know, 14 well, we didn't really detect any. But he could 15 have added but we might have if we'd used a 16 preconcentration technique, as recommended. So, 17 you know, I'm not sure what -- what he really 18 might have been meaning there. 19 Q Okay. Well, but you don't know what he 20 meant, but we can read what his testimony was, as 21 we did; correct? 22 MS. O'DELL: 23 Object to the form. 24 A And we did.</p>	<p style="text-align: right;">Page 428</p> <p>1 asbestos-free, and we've been, you know, in this 2 room together for a few hours and, you know, 3 even, say, that the air in this room is 4 asbestos-free. So I can't really agree with the 5 way that you've written that." 6 Did I read that correctly? 7 A Yeah. 8 Q Okay. And certainly based on the 9 answers that we read -- 10 And I'm not gonna sit here and read the 11 whole deposition, and you wouldn't want me to. 12 A Yeah. That's a problem. 13 Q But in terms of what we've read, he did 14 not say that the policy was asbestos-free. He 15 explained in his answers what his -- what the 16 policy was or his philosophy of the policy. 17 MS. O'DELL: 18 Object to the form. 19 MR. FERGUSON: 20 Q Correct, sir? 21 A I think on the two pages we looked at 22 out of a deposition that's, what, 5- or 600 pages 23 long. 24 Q Can you cite me to the portion --</p>
<p style="text-align: right;">Page 427</p> <p>1 MR. FERGUSON: 2 Q Okay. Why don't you go to page 97. 3 Let's read one more question and answer. 4 A Okay. 5 Q At page 97, starting at line 20 -- 6 A Okay. 7 Q -- by Miss O'Dell: "Is that fair? 8 Because you wouldn't agree it's not -- you won't 9 agree it's asbestos-free. You agree that it's 10 below detectable limits; true?" 11 And then Mr. Downey's answer is -- is a 12 little long, so just follow it along with me. He 13 says, on page 98: "Our talc, we have a rigorous 14 testing program that also includes not only the 15 testing itself but our knowledge of the ore 16 deposits and the testing that and sampling and 17 mapping that we do continually through the 18 process. We are confident that our products are 19 safe, but in terms of a detection limit, I'm not 20 the expert on that. Julie Pier can speak to 21 that. But the scientific instruments are not 22 available to tell us that our product is, quote, 23 unquote, asbestos-free. We can't say that in 24 this room that has air in this room is</p>	<p style="text-align: right;">Page 429</p> <p>1 A No. 2 Q -- in which Mr. Downey said what you 3 said he said, which is that the policy is 4 asbestos-free? 5 A No. 6 MS. O'DELL: 7 Object to the form. 8 MR. FERGUSON: 9 Q Okay. You can -- you can put that 10 away. I think we're through with Mr. Downey for 11 the time being. 12 A Okay. 13 Q Just go ahead and set that to your 14 left, because I know it's a big volume. 15 MS. O'DELL: 16 Don't let it go far. I'll take it. 17 MR. FROST: 18 You there, Leigh? 19 MS. O'DELL: 20 Yeah, I've got it. I'm good. 21 MR. FERGUSON: 22 You good? 23 MS. O'DELL: 24 Yeah. I'm good. Barely.</p>

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<p style="text-align: right;">Page 430</p> <p>1 MR. FERGUSON: 2 Barely? 3 MS. O'DELL: 4 Barely. 5 MR. FERGUSON: 6 You ready for us to go, Leigh? 7 MS. O'DELL: 8 Yeah, yeah. 9 MR. FERGUSON: 10 Q Dr. Cook, as you and Mr. Frost talked 11 about, you've published a number of peer-reviewed 12 academic papers; correct? 13 A Correct. 14 Q Is it fair to say that customarily you 15 cite peer-reviewed research in your academic 16 papers? 17 A It's not the only thing you cite, but, 18 sure, that's fair enough. 19 Q Okay. And -- and in your academic 20 papers, would it be fair to say that you 21 generally do not cite to paid experts for a 22 particular party with an interest in the 23 litigation? 24 MS. O'DELL:</p>	<p style="text-align: right;">Page 432</p> <p>1 Object to the form. 2 A I thought that you asked about 3 peer-reviewed publications. I've not cited Longo 4 in a peer-reviewed publication. The only place 5 I've ever mentioned him is in my expert report. 6 I guarantee it won't be published. 7 MR. FERGUSON: 8 Q In your report on a number of 9 occasions, you refer to contemporaneous testing 10 that shows the presence of -- of certain 11 contaminants in Johnson &amp; Johnson's baby powder. 12 Correct? 13 A "Contemporaneous testing." 14 Q Yes, sir. 15 A I mean, is that your word or my word? 16 Q That's your word. 17 A Okay. 18 Q When you refer to contemporaneous 19 testing, are you referring to -- to Dr. Longo's 20 report? 21 A No. 22 Q Okay. What are you referring to? 23 A No. I think contemporaneous testing 24 means that you're -- you're testing in a -- in a</p>
<p style="text-align: right;">Page 431</p> <p>1 Object to the form. 2 A I would hope not to do that. 3 MR. FERGUSON: 4 Q Okay. So in your academic papers, you 5 would not cite to a non-peer-reviewed publication 6 that is authored by a litigation expert who was 7 hired by a particular side in litigation; 8 correct? 9 MS. O'DELL: 10 Object to the form. 11 A If I did, it would not be on purpose. 12 MR. FERGUSON: 13 Q But in your report here, that's exactly 14 what you did do; correct? 15 A I don't know. 16 Q Did you cite to Mr. -- Dr. Longo's 17 report? 18 A Oh, I had to. Of course. I mean, I'm 19 not sure that I understand why there's a problem 20 with that. 21 Q But that is different than what you do 22 in your academic papers. 23 A Well, but you -- 24 MS. O'DELL:</p>	<p style="text-align: right;">Page 433</p> <p>1 timely manner relative to the processes that are 2 in place. For instance, if you're gonna -- if 3 you're gonna test the drill cuttings that are 4 generated by your blast hole driller, then you 5 need to go ahead and analyze those. It makes no 6 sense to wait for a year after the blast has been 7 made and another blast and another blast and then 8 analyze them. That would not be contemporaneous 9 testing. And that's all I'm saying. You need to 10 be testing as you move forward in the milling and 11 mining process so that you know what the 12 character of the material is at the time that 13 you're producing it, not a year or ten years 14 later. 15 Q And you and Mr. Frost talked toward the 16 end of your questioning about the extent to which 17 you relied or didn't rely on Dr. Longo's testing. 18 Do you recall that conversation? 19 A Yes. 20 Q Okay. And I'm not gonna go back 21 through that. 22 A I mean, I've referenced him. And 23 that -- that was why I said I'd like to say a 24 little -- a little bit more about Longo.</p>

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<p style="text-align: right;">Page 434</p> <p>1 Because, you know, he has more than one report. 2 Q Now, Dr. Longo's reports relate to 3 whether there is or is not asbestos in baby 4 powder; correct? 5 A And fibrous talc. 6 Q Okay. Now, are you aware that the 7 U.S. Food and Drug Administration actually tested 8 a number of body powder products and raw material 9 talc about ten years ago to determine if, in 10 fact, there was asbestos detected in that -- that 11 product or those products? 12 A I'm -- 13 MS. O'DELL: 14 Object to the form. 15 A I'm familiar with the report. And at 16 the end of the report, it says that these results 17 are not to be taken to mean there's no asbestos 18 in these products. 19 MR. FERGUSON: 20 Q With regard to the findings of that 21 report, do you know that -- that both 22 Johnson &amp; Johnson and Imerys supplied product to 23 be tested by the FDA? 24 A Yes.</p>	<p style="text-align: right;">Page 436</p> <p>1 MS. O'DELL: 2 Fair enough. 3 MR. FERGUSON: 4 Trying to save time there. 5 MS. O'DELL: 6 Okay. Well, I'm just being clear. 7 MR. FERGUSON: 8 Fair enough. So we'll start over so I 9 say that -- say that technically correct. 10 Q You are aware, then, that a raw -- 11 cosmetic raw material talc that was supplied by 12 Rio Tinto Mineral/Luzenac America in eight 13 separate lots was supplied to the FDA for 14 testing? 15 A I don't know about the eight separate 16 lots. 17 Q Okay. 18 A I don't remember that. 19 Q You know they supplied some. 20 A Yes. 21 Q And that there was no asbestos 22 detected; correct? 23 A Correct. 24 Q And that there was no asbestos --</p>
<p style="text-align: right;">Page 435</p> <p>1 Q Correct? 2 MS. O'DELL: 3 Object to the form. That's a 4 misstatement as to Johnson &amp; Johnson, as you're 5 aware. 6 MR. FERGUSON: 7 Let me go back. 8 MS. O'DELL: 9 In terms of supplying it. They 10 purchased it, but Johnson &amp; Johnson did not 11 supply. 12 MR. FERGUSON: 13 My -- my bad language. Okay? 14 Q Do you understand that the FDA did, in 15 fact, test a Johnson &amp; Johnson baby powder 16 product? 17 A Correct. 18 Q And they also tested some cosmetic raw 19 material talc supplied by Luzenac; correct? 20 A I think that's right. 21 MS. O'DELL: 22 Rio Tinto. 23 MR. FERGUSON: 24 Luzenac/Rio Tinto, I think it says.</p>	<p style="text-align: right;">Page 437</p> <p>1 A With some methods employed. 2 Q Of course. With the methods they 3 employed, the U.S. Food and Drug Administration, 4 there was no asbestos detected in the 5 Johnson &amp; Johnson baby powder product that they 6 had obtained. Correct? 7 A Right. 8 MS. O'DELL: 9 Object to the form. 10 A Yes. 11 MR. FERGUSON: 12 Q And is it also true that they obtained 13 a Johnson &amp; Johnson Shower to Shower product as 14 well? 15 A I believe that's correct. 16 Q Okay. And, likewise, did they find 17 that the Shower to Shower product had no asbestos 18 detected by the methods they utilized? 19 A I think that's correct. 20 Q Let's talk a little bit about the other 21 substances that you have talked about today, 22 including the so-called heavy metals. First of 23 all, let me talk to you about arsenic. 24 A Okay.</p>

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<p style="text-align: right;">Page 438</p> <p>1 Q You've discussed arsenic today; 2 correct? 3 A Correct. 4 Q Would you agree that the general 5 population is exposed to arsenic through -- 6 through various modes? 7 A Oh, I think so. 8 Q Arsenic is actually transported in the 9 environment by water; correct? 10 MS. O'DELL: 11 Object to the form. 12 A Yes. And -- and the -- the -- the 13 limits on arsenic in water has -- has lowered 14 dramatically. 15 MR. FERGUSON: 16 Q And -- and arsenic is found in drinking 17 water in many places, including in the 18 United States, correct, at some level? 19 A I think that at some level, yes. I 20 think that you're looking at the low parts per 21 billion is -- is, you know, where you'd better 22 be. If you're in the parts per million, you're 23 gonna -- you know, you're out of spec. You're in 24 trouble.</p>	<p style="text-align: right;">Page 440</p> <p>1 Object to the form. 2 A I don't know. But if you tell me that, 3 I would accept it. 4 MR. FERGUSON: 5 Q Okay. I could refer you to IARC page 6 175. 7 A Okay. 8 Q I'll tell you IARC says that. 9 A Okay. 10 Q You're not arguing with IARC on that 11 point, are you? 12 A Nope. 13 Q Okay. And nickel's found in food and 14 drinking water; correct? 15 A Yes. 16 Q And, then, chromium was another 17 substance you talked about; correct? 18 A Correct. 19 Q The general population can be exposed 20 to chromium through inhalation of ambient air or 21 ingestion; correct? 22 A Correct. 23 Q Now, you've talked about each of these 24 substances, nickel, chromium, arsenic, and said</p>
<p style="text-align: right;">Page 439</p> <p>1 Q Would you agree that many foods even 2 contain arsenic? 3 A Yes. 4 Q And that particularly the highest 5 concentrations of food -- of arsenic in food are 6 in seafood? 7 A I don't know that that's true. I know 8 that it's true for probably mercury, but I'm 9 not -- I'm not sure about arsenic. But I could 10 certainly see how arsenic could -- could get into 11 seafood. 12 Q Did you read the 2012 publication 13 monograph by IARC on arsenic metals, fibers, and 14 dusts? 15 A If I read that section, I read it 16 really early on in the process of going through 17 all the materials that I was supplied. 18 Q Let's talk about another substance that 19 you've talked about some, which is nickel. Do 20 you recall discussing nickel today? 21 A Sure. 22 Q And nickel, in fact, is the 24th most 23 abundant element; correct? 24 MS. O'DELL:</p>	<p style="text-align: right;">Page 441</p> <p>1 that -- I'm trying to figure out where -- you 2 said these are known carcinogens, I believe, in 3 each instance. Is that correct? 4 MS. O'DELL: 5 Object to the form. 6 MR. FERGUSON: 7 Q In your report. 8 MS. O'DELL: 9 Object to the form. 10 A Yes. You did not include cobalt; 11 right? 12 MR. FERGUSON: 13 Q I did not include cobalt. 14 A Okay. Right, then. 15 Q Is that correct? 16 A I think so. 17 Q So nickel, chromium, arsenic you have 18 said are known carcinogens; correct? 19 A I believe they are. 20 Q Now, and I realize you are not an 21 expert on toxicology -- 22 A Correct. 23 Q -- or carcinogenicity or medicine; 24 correct?</p>

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<p style="text-align: right;">Page 442</p> <p>1 A Correct.</p> <p>2 Q But in your report you said these are</p> <p>3 known carcinogens; correct? Is that based on --</p> <p>4 A Well, I think they're spelled out in</p> <p>5 IARC that they are.</p> <p>6 Q Now, with regard to IARC, with regard</p> <p>7 to -- and we'll take them separately. With</p> <p>8 regard to nickel, is there any statement in IARC</p> <p>9 indicating that nickel is in any way associated</p> <p>10 with ovarian cancer?</p> <p>11 MS. O'DELL:</p> <p>12 Object to the form.</p> <p>13 A I did not read anything to that effect.</p> <p>14 MR. FERGUSON:</p> <p>15 Q Okay. And with regard to chromium, is</p> <p>16 there any indication in the IARC report in 2012</p> <p>17 that chromium is in any way associated with</p> <p>18 ovarian cancer?</p> <p>19 MS. O'DELL:</p> <p>20 Object to the form.</p> <p>21 A Again, I didn't read anything that</p> <p>22 would indicate that.</p> <p>23 MR. FERGUSON:</p> <p>24 Q And, likewise, arsenic, is there any</p>	<p style="text-align: right;">Page 444</p> <p>1 Would you agree with me that asbestos minerals</p> <p>2 are widespread in the environment?</p> <p>3 MS. O'DELL:</p> <p>4 Object to the form.</p> <p>5 A Asbestos minerals? Yes. In terms of</p> <p>6 the amphiboles with respect to chrysotile,</p> <p>7 probably it's -- it's more limited in occurrence.</p> <p>8 MR. FERGUSON:</p> <p>9 Q And why don't -- why don't we go ahead</p> <p>10 and just refer, in case we need to, to the IARC</p> <p>11 2012 monograph.</p> <p>12 I -- I set it over there to his left,</p> <p>13 Leigh. I believe it's the one right there, if I</p> <p>14 recall correctly.</p> <p>15 A Okay.</p> <p>16 Q Can you, first of all, turn to the</p> <p>17 monograph itself, which I think is the first item</p> <p>18 in there?</p> <p>19 A It is.</p> <p>20 Q Okay. And would you go to page 222?</p> <p>21 A I'm getting there. Okay. I've got it.</p> <p>22 Q Are you there, 222?</p> <p>23 A Right. Uh-huh.</p> <p>24 Q Under "Natural Occurrence" --</p>
<p style="text-align: right;">Page 443</p> <p>1 indication in the IARC report that arsenic is in</p> <p>2 any way associated with ovarian cancer?</p> <p>3 MS. O'DELL:</p> <p>4 Object to the form.</p> <p>5 A I didn't read anything like that.</p> <p>6 MR. FERGUSON:</p> <p>7 Q And you understand that -- that the</p> <p>8 litigation that we're here today about deals with</p> <p>9 ovarian cancer; correct?</p> <p>10 A I -- I understand that.</p> <p>11 Q You're welcome to look at it, but I'll</p> <p>12 represent to you on pages 5 to 6 of your report</p> <p>13 you -- you have a quote that says, "Hand sorting</p> <p>14 at the Chinese mine is used as a first step in</p> <p>15 the beneficiation process."</p> <p>16 Do you recall generally making that</p> <p>17 comment?</p> <p>18 A Sure. Of course.</p> <p>19 Q Well, we can look it up if you want.</p> <p>20 A No. I remember writing it. It's true.</p> <p>21 Q Okay. Are you critical of hand sorting</p> <p>22 as a first step in the beneficiation process?</p> <p>23 A No.</p> <p>24 Q Let's talk a little bit about asbestos.</p>	<p style="text-align: right;">Page 445</p> <p>1 A Uh-huh.</p> <p>2 Q Do you see that section? And there's</p> <p>3 the sentence I just quoted, "Asbestos minerals</p> <p>4 are widespread in the environment and are found</p> <p>5 in many areas where the original rock mass has</p> <p>6 undergone metamorphism."</p> <p>7 Correct?</p> <p>8 A Correct.</p> <p>9 Q And further they go on in IARC to say</p> <p>10 that asbestos minerals are found in the water,</p> <p>11 soil, and air.</p> <p>12 Is that accurate?</p> <p>13 MS. O'DELL:</p> <p>14 In terms of what it states or --</p> <p>15 MR. FERGUSON:</p> <p>16 Q Yeah.</p> <p>17 A Air monitoring for asbestos is -- was a</p> <p>18 major industry. So with respect to air,</p> <p>19 certainly. Soil, certainly. There's been lots</p> <p>20 of work done on that. Water, I don't -- I don't</p> <p>21 have a knowledge base relative to water with</p> <p>22 respect to asbestos. I'm sure you can find it in</p> <p>23 some waters. I'm not sure that -- that these</p> <p>24 waters aren't gonna be directly related to some</p>

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<p>1 peculiar industrial application, such as maybe 2 outside of an insulation factory, something like 3 that you might find surface water that has a 4 little asbestos in it. 5 Q Take a look at page 224. 6 A Okay. Okay. Got it. 7 Q You see there's a section on water? 8 A I see it. 9 Q It says, "Asbestos can enter the 10 aquatic environment from both natural and 11 anthropogenic sources." 12 A Sure. 13 Q And has been measured in both ground 14 and surface water samples; correct? 15 A Yes. 16 MS. O'DELL: 17 Would you mind finishing the paragraph? 18 MR. FERGUSON: 19 Oh, I'm happy -- I'm happy to read the 20 whole paragraph. I don't want to read the whole 21 thing. But it says, "Erosion of asbestos-bearing 22 rock is the principal natural source. 23 Anthropogenic sources include erosion of waste 24 piles containing asbestos, erosion of asbestos</p>	<p>1 Q Cubic meter. My bad. I know three is 2 a cubic. 3 A Yep. 4 Q Is that correct? 5 A Correct. 6 Q Okay. And do you take issue with that? 7 I know -- 8 A No. 9 Q And then it goes on to say in that 10 paragraph, "Typical concentrations are about 11 tenfold higher in urban locations and about 1,000 12 times higher in close proximity to industrial 13 sources of exposure, asbestos mine or factory, 14 demolition site or improperly protected 15 asbestos-containing waste site." 16 That's what IARC says; correct? 17 A I think there's lots of data on that. 18 Q Sorry? 19 A I think there's a lot of data on that 20 that would suggest that that's a correct 21 statement. 22 Q And just a couple more here. In the 23 next paragraph, it says, "In indoor air -- e.g., 24 in homes, schools, and other buildings --</p>
Page 447	Page 449
<p>1 cement pipes, disintegration of 2 asbestos-containing roofing materials and 3 industrial wastewater runoff." 4 MS. O'DELL: 5 Okay. 6 MR. FERGUSON: 7 Q Why don't you go to page 225. 8 A Okay. 9 Q And you see there's a section called 10 "Exposure of the General Population"? 11 A Yes. 12 Q And the first sentence there says, 13 "Inhalation of asbestos fibers from outdoor air 14 and, to a lesser degree, an indoor air is the 15 primary route of exposure for the nonsmoking 16 general population." 17 Correct? 18 A Correct. 19 Q If you look in the next paragraph, the 20 second sentence says that low levels of asbestos 21 have been measured in outdoor air in rural 22 locations. Typical concentration, 10 fibers per 23 square meter. Correct? 24 A Cubic meter.</p>	<p>1 measured concentrations of asbestos are in the 2 range of 30 to 6,000 fibers per cubic meter." 3 Correct? 4 A Correct. 5 Q So the bottom line is there is a level 6 of background exposure to asbestos for the 7 general population. Correct? 8 MS. O'DELL: 9 Object to the form. 10 A I think it's a correct statement. 11 MR. FERGUSON: 12 Q I'm sorry? 13 A I think that's a correct statement. 14 Q I want to talk to you a little bit 15 about your notes that we made reference to 16 earlier. Just -- I'm not gonna have you read 17 them into the record. 18 A Okay. 19 Q Thankfully. 20 A Yeah. 21 Q But I just had a few questions on 22 the -- what I'll hand to you as 3.1. You have 23 the letter K in the upper left-hand corner, and 24 then it says "Page 4, Italian-mined ultramafic</p>

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<p style="text-align: right;">Page 450</p> <p>1 origin" with two question marks. Okay? And</p> <p>2 we'll let Miss O'Dell take a look at it, and then</p> <p>3 I'll ask you what is meant by that.</p> <p>4 A Sure. Not a problem.</p> <p>5 Q Okay. I'm --</p> <p>6 A I wish I had put dates on these.</p> <p>7 Q I'm assuming that that is a reference</p> <p>8 to Dr. Krekeler's report. Is that correct?</p> <p>9 A I think it is.</p> <p>10 Q Okay.</p> <p>11 A I can tell you what -- what the note</p> <p>12 means.</p> <p>13 Q All right.</p> <p>14 A There -- there are ophiolites</p> <p>15 associated with the mountain-building process</p> <p>16 that produced the Alps. And, so, ophiolites are</p> <p>17 ultramafic. So you could have had talc</p> <p>18 occurrences that were similar to those in Vermont</p> <p>19 or you could have had the Val Chisone type, which</p> <p>20 we know are actually related, to metamorph those</p> <p>21 carbonate rocks. And I -- I was making really a</p> <p>22 note to myself to go back and take a hard look at</p> <p>23 the Italian talc occurrences and make darn sure</p> <p>24 that there are no ultramafic rocks associated</p>	<p style="text-align: right;">Page 452</p> <p>1 A Sorry about that.</p> <p>2 MR. FERGUSON:</p> <p>3 Q And my question to you is --</p> <p>4 And feel free to look at -- take your</p> <p>5 time to look at it if you need to.</p> <p>6 At the top, it says, "For expert report</p> <p>7 12-29-18." What does that mean? Does that mean</p> <p>8 it's -- well, you tell me what that means. Notes</p> <p>9 for your expert report?</p> <p>10 A I turned in my -- the first version of</p> <p>11 my expert report prior to this date. And then</p> <p>12 these are notes about things that need to be</p> <p>13 added since I'm getting the material.</p> <p>14 Q Okay. Fair enough.</p> <p>15 Then 3.8, I'm just trying to figure out</p> <p>16 generally what that is.</p> <p>17 A Sure.</p> <p>18 Q You don't have to fill me in on all the</p> <p>19 details but I'm trying to understand what the</p> <p>20 purpose of that document is.</p> <p>21 A Sure.</p> <p>22 Oh, this is something that I did very</p> <p>23 early on. When I first was asked by Miss O'Dell</p> <p>24 to look at this, one of the things I did was to</p>
<p style="text-align: right;">Page 451</p> <p>1 with Val Chisone.</p> <p>2 Q Okay.</p> <p>3 A And that's all that means.</p> <p>4 Q Could I have that back --</p> <p>5 A Sure.</p> <p>6 Q -- please?</p> <p>7 A You bet.</p> <p>8 Q Are there any ultramafic rocks in</p> <p>9 Val Chisone?</p> <p>10 A They are not shown in the immediate</p> <p>11 proximity to those talc deposits.</p> <p>12 Q Okay.</p> <p>13 A If they're there, you don't see them on</p> <p>14 the map of the deposits.</p> <p>15 Q So you're not aware that they're there.</p> <p>16 You don't see --</p> <p>17 A I don't think that the talc deposits</p> <p>18 are related to ultramafic rocks.</p> <p>19 Q I'm sure all this will be very</p> <p>20 interesting, but I'm not going to take the time</p> <p>21 to go through each of these.</p> <p>22 Let me show you 3.6.</p> <p>23 MS. O'DELL:</p> <p>24 Thank you.</p>	<p style="text-align: right;">Page 453</p> <p>1 try to track possible talc sources. I wasn't</p> <p>2 aware of -- I mean, I knew that there was Montana</p> <p>3 talc being mined. I didn't know at this point</p> <p>4 whether or not Montana talc was being used as a</p> <p>5 cosmetic product, for example.</p> <p>6 So this is -- this is just a page where</p> <p>7 I was jotting down some notes about where talc</p> <p>8 had been mined in the US. That's it.</p> <p>9 Q Thank you.</p> <p>10 A Sure.</p> <p>11 Q And then there's several pages that I</p> <p>12 think seem obvious that you had a Downey depo.</p> <p>13 Then you have notes --</p> <p>14 A Right.</p> <p>15 Q -- out beside page whatever.</p> <p>16 A Sure.</p> <p>17 Q So you've made notes on various</p> <p>18 depositions; correct?</p> <p>19 A Yes.</p> <p>20 Q Did you read a transcript of a trial</p> <p>21 called Herford?</p> <p>22 A I don't remember it.</p> <p>23 Q Okay. Or depositions from the Herford</p> <p>24 case?</p>

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<p style="text-align: right;">Page 454</p> <p>1 A What would be a -- a name, a person's 2 name that would be deposed? 3 Q I can't tell you. 4 A I mean, the -- I think I've actually 5 seen the Herford name, but I don't -- I don't 6 know that I've seen a deposition or a transcript. 7 Q Let me show you 3.9. Just let me know 8 what that is. I'm trying to figure out what it 9 is you summarized there. 10 A Okay. 11 MS. O'DELL: 12 And you're just talking to -- about 13 this here? Because there appears to be -- 14 MR. FERGUSON: 15 There are a number of things in there. 16 MS. O'DELL: 17 That the Hicks deposition's reference, 18 which, of course, would have been in this case, 19 and some other? 20 MR. FERGUSON: 21 Right. Yeah. 22 Q The Herford notation, what is that? 23 MS. O'DELL: 24 Right in the center of that page.</p>	<p style="text-align: right;">Page 456</p> <p>1 Would you describe for us the 2 methodology that you've used in reaching your 3 opinions in this case? 4 A Okay. When -- when -- when you first 5 approached me and we discussed the -- the data 6 sets that you thought would be available and, you 7 know, did I understand mining techniques that 8 might be related to what we were doing and did I 9 understand the milling processes, did I 10 understand the -- the methodology in testing, you 11 know, I answered affirmatively. So you began to 12 supply me with documents. 13 But based on your original description 14 of the project, I started doing my own background 15 literature review. And, so, I began to weed that 16 literature review, the knowledge I had with that 17 review, in with information that I already had in 18 my head relative to talc and asbestos and heavy 19 metals and the mining. Anyway, I began to 20 develop a database from which I worked. 21 And, so, as you began to give me 22 information, I began to categorize it based on 23 the type of information. Is it asbestos sources? 24 Is it mining? In other words, what does that --</p>
<p style="text-align: right;">Page 455</p> <p>1 A Uh-huh. I don't know. I apparently 2 didn't use it at all. When I read the 3 deposition, apparently Hicks mentioned this on 4 page 102, and I made a note to that effect. 5 I see here that it has x-ray refraction 6 mentioned. But I don't -- I don't know. I 7 didn't refer to this. I mean, I don't think I 8 referred to it in my report. 9 Q Dr. Cook, I think that's all I have. 10 Thank you -- thank you for your time, sir. 11 A Okay. You're welcome. 12 MS. O'DELL: 13 Let's go off the record. 14 VIDEOGRAPHER: 15 Going off the record. The time is 5:46 16 p.m. 17 (OFF THE RECORD.) 18 VIDEOGRAPHER: 19 We're back on the record. The time is 20 6:21 p.m. 21 EXAMINATION 22 BY MS. O'DELL: 23 Q Dr. Cook, I have a few questions for 24 you.</p>	<p style="text-align: right;">Page 457</p> <p>1 that document pertain to? 2 And, in the end, I ended up with maybe 3 six or eight headings that -- that I thought I 4 could categorize information in. 5 And, so, I began to look -- to look at 6 the material that I had put in each category and 7 see if there were trends that were beginning to 8 come out of the -- out of these data sets. 9 And, of course, in some, there were. 10 And, so, I began to take notes, and those notes 11 were in the form originally of -- of a simple 12 outline of headings with statements. And from 13 that outline and those statements, those 14 statements became paragraphs as more information 15 was gained, and ultimately a report came out of 16 that. 17 And, so, I -- I approached it as I 18 would any research project, except that I wasn't 19 generating new data. I was evaluating existing 20 data. And -- and that's an accepted technique in 21 terms of using the scientific method to come to a 22 conclusion or an opinion. 23 And, so, you know, ultimately, you see 24 these documents here. They're about maybe 650</p>

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<p style="text-align: right;">Page 458</p> <p>1 documents here, and this is not half of the 2 documents that I've reviewed so far. And -- 3 and -- and I hope to continue reviewing documents 4 that will then add to the database from which my 5 opinions will be supported. 6 Q Why did you -- you cited some geologic 7 references in articles. I think one of them was 8 Van Gosen. I think you were asked about 9 Chidester earlier today, as well as some 10 references that related to not only Vermont talc 11 deposits but also Italian talc. What was the 12 purpose of citing those references? 13 MR. FROST: 14 Objection to form. 15 A Yeah. Well, the Vermont papers had to 16 do with setting the stage for the geologic 17 framework within which the ultramafic rocks 18 occurred. So they weren't intended to point out 19 any character events, any specific mine. It was 20 to -- to give the interested reader some way to 21 gain background information. 22 And the same is really true about the 23 Italian talc deposits. I -- I gave those 24 references that are really general geologic</p>	<p style="text-align: right;">Page 460</p> <p>1 Dr. Cook? 2 MR. FROST: 3 Oh, yes. Absolutely. That's fine. 4 MS. O'DELL: 5 Q And you'll see -- I believe it's on 6 page 993, but that's where the -- 7 A Right. 8 Q -- Vermont description occurs. 9 A Sure. 10 Q Would that description of the Vermont 11 talc deposits be relevant and applicable to the 12 Vermont mines that were used to source 13 Johnson &amp; Johnson's talcum powder products? 14 A Sure. It's a -- it's a brief 15 description of the -- the talc district as a 16 whole, and from that you can begin to -- to put 17 individual deposits. But this is just a -- a 18 general background paper. 19 Q Okay. In the methodology, have you -- 20 you've described, is that methodology you've used 21 at other points in -- in your career? 22 MR. FROST: 23 Objection to form. 24 A Yes. And, in fact, that's -- that's</p>
<p style="text-align: right;">Page 459</p> <p>1 information so that there was a foundation upon 2 which the more detailed information could be -- 3 be anchored. 4 Q Uh-huh. Would it have been -- would it 5 be your normal practice as a professional 6 geologist as well as a professor to refer to and 7 cite general geological references when 8 describing a specific deposit? 9 A Yes. That's -- that's the start of 10 the -- if it's gonna be a paper, that's the start 11 of a -- of a paper that might be submitted for 12 publication. You don't want to start and assume 13 that the reader knows more than he may know. You 14 need to give the reader the opportunity to start 15 at a relatively low general point. 16 Q You were provided a copy that was 17 marked as an exhibit -- I think it was Exhibit 18 11. Was -- was actually the Van Gosen paper. 19 A Okay. 20 Q And specifically in the Van Gosen 21 paper, I think it goes into Vermont talc deposits 22 on page 933. 23 And, Jack, I have it marked on mine. 24 Do you mind, just for ease, if hand it to</p>	<p style="text-align: right;">Page 461</p> <p>1 the standard method of operation. You're 2 presented with a problem. I go to the library 3 and -- and get all the material I can get and 4 read up on it. And, then, in the case of the 5 talc litigation here, you -- you have to treat 6 the documents that you're being given as data. 7 And the data you use as you would in any 8 scientific investigation. You use it to either 9 confirm a hypothesis or disprove it. And if you 10 disprove it, you modify the hypothesis and -- and 11 work on it again. And, so, and that's exactly 12 what I did here. 13 Q And, in doing that, did you use the 14 same attention to detail that you would use in 15 your duties previously as a professor of geology? 16 MR. FROST: 17 Objection to form. 18 A Yes. In fact, the attention to detail 19 is almost overwhelming. There's a lot of -- a 20 lot of detail here. 21 MS. O'DELL: 22 Q And would it also be the same type of 23 methodology that you would use in your duties 24 consulting for companies as a professional</p>

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<p style="text-align: right;">Page 462</p> <p>1 geologist?</p> <p>2 MR. FROST:</p> <p>3 Objection.</p> <p>4 A Yes, in fact, I've done scoping studies</p> <p>5 for Kinross and one other company within the last</p> <p>6 few years. And this is pretty much what they --</p> <p>7 what they're looking for is a -- a compilation of</p> <p>8 all information available on a particular topic</p> <p>9 or area put together in a report. And the</p> <p>10 working hypothesis for a mining company is, in</p> <p>11 this area, given all the data that's available to</p> <p>12 you, would you recommend coming in and spending a</p> <p>13 million bucks looking for a new mineral deposit?</p> <p>14 And, so, from that standpoint, it's</p> <p>15 exactly what -- what I did here. I mean, it's</p> <p>16 the same general intellectual exercise.</p> <p>17 MS. O'DELL:</p> <p>18 Q As a part of -- of -- of -- of your</p> <p>19 methodology outside litigation, would you</p> <p>20 routinely rely on testing data as a part of that</p> <p>21 process?</p> <p>22 A Would I -- would I be doing the</p> <p>23 testing? Sometimes.</p> <p>24 Q No, sir. Just -- but rely on data,</p>	<p style="text-align: right;">Page 464</p> <p>1 questions on a couple of different topics.</p> <p>2 First, let me show you or direct your attention</p> <p>3 back to the deposition of Patrick Downey.</p> <p>4 A Sure.</p> <p>5 Q You were asked some questions by</p> <p>6 Mr. Ferguson about the Downey deposition. And,</p> <p>7 if I recall correctly, the suggestion was made</p> <p>8 that Mr. Downey did not testify that Imerys</p> <p>9 certified that the talc powder sold to</p> <p>10 Johnson &amp; Johnson was asbestos-free. Do you</p> <p>11 remember those questions?</p> <p>12 A Yes.</p> <p>13 MR. FERGUSON:</p> <p>14 Object to the form.</p> <p>15 A I remember the questions.</p> <p>16 MS. O'DELL:</p> <p>17 Q In -- you know, direct your attention</p> <p>18 to page 508 of the transcript and to line number</p> <p>19 15.</p> <p>20 A 508?</p> <p>21 Q 506. Excuse me. I'm sorry. 506, line</p> <p>22 15.</p> <p>23 A Okay.</p> <p>24 Q And the question was asked to</p>
<p style="text-align: right;">Page 463</p> <p>1 testing data, in regard to your process of --</p> <p>2 A Sure.</p> <p>3 Q -- of evaluating.</p> <p>4 A Of course. In fact, that's one of --</p> <p>5 one of the problems is waiting for data to come</p> <p>6 in from the lab.</p> <p>7 Q That's right.</p> <p>8 You mentioned earlier today that you</p> <p>9 referenced the report of -- reports of Dr. --</p> <p>10 Dr. Longo --</p> <p>11 A Right.</p> <p>12 Q -- and Rigler.</p> <p>13 Did you rely on the data reported in</p> <p>14 Dr. Longo's reports in reaching your opinions?</p> <p>15 A Yes.</p> <p>16 Q And would, as I've mentioned,</p> <p>17 testing --</p> <p>18 Or let me just ask you in a non-leading</p> <p>19 way.</p> <p>20 As a professional geologist, would you</p> <p>21 routinely rely on testing data as a part of</p> <p>22 your -- your responsibility?</p> <p>23 A Yes.</p> <p>24 Q Let me ask you a couple of different --</p>	<p style="text-align: right;">Page 465</p> <p>1 Mr. Downey: "Why were you not able to give a</p> <p>2 true -- a simple true-or-false answer to the</p> <p>3 question of asbestos-free?"</p> <p>4 Answer: "Well, I was trying to be</p> <p>5 scientifically accurate, perhaps hypertechnical,</p> <p>6 but it was the conjunction of the terms</p> <p>7 'certified' and 'asbestos-free.' That's not the</p> <p>8 language that we use in certifications. But if</p> <p>9 you're asking me if our product contains</p> <p>10 asbestos, no, it does not."</p> <p>11 And, in fact, did Mr. Downey testify</p> <p>12 that the product provided to Johnson &amp; Johnson</p> <p>13 for its talcum powder products were free of</p> <p>14 asbestos?</p> <p>15 MR. FERGUSON:</p> <p>16 Objection to form.</p> <p>17 MR. FROST:</p> <p>18 Objection to form.</p> <p>19 A It certainly sounds that way in -- in</p> <p>20 the deposition.</p> <p>21 MS. O'DELL:</p> <p>22 Q Is that what you were referring to?</p> <p>23 A Yes, that is what I was referring to.</p> <p>24 Q Thanks, Doctor. You can put that to</p>

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<p style="text-align: right;">Page 466</p> <p>1 the -- to the side.</p> <p>2 A Do you want it or not?</p> <p>3 Q Just put it there. Thanks so much.</p> <p>4 If you will now turn to page 5 of your</p> <p>5 report.</p> <p>6 A Okay.</p> <p>7 Q And, at the bottom of the page, in the</p> <p>8 last paragraph on page 5, it's paragraph</p> <p>9 beginning "in 2003." And on the second sentence</p> <p>10 of that paragraph, it says, "Chinese talc</p> <p>11 occurrences included in those" -- excuse me --</p> <p>12 "including those in the Guangxi province have</p> <p>13 been described in certain Imerys documents."</p> <p>14 And then several are listed there.</p> <p>15 A Right.</p> <p>16 MR. FROST:</p> <p>17 Objection to form.</p> <p>18 MS. O'DELL:</p> <p>19 Q And I think Johnson &amp; Johnson counsel</p> <p>20 showed you several documents, and I think you</p> <p>21 indicated that there was an error in the Bates</p> <p>22 reference.</p> <p>23 A Right. There is.</p> <p>24 Q Let me show you what I'm marking as</p>	<p style="text-align: right;">Page 468</p> <p>1 documents that you intended to refer to?</p> <p>2 A Yes. I almost think I had this</p> <p>3 document that has a different Bates number on it.</p> <p>4 But, yeah, this -- this is -- that's it.</p> <p>5 Q Okay. Thank you.</p> <p>6 MR. FROST:</p> <p>7 Can I see the document?</p> <p>8 MS. O'DELL:</p> <p>9 Q All right. In --</p> <p>10 Now, I ask -- if I could ask you,</p> <p>11 Doctor, to pull out of your -- the stack over</p> <p>12 there -- and maybe Lois will help us -- Exhibit</p> <p>13 14.</p> <p>14 A Okay. Getting close.</p> <p>15 Q Okay.</p> <p>16 A Okay. Got it.</p> <p>17 Q And Exhibit 14 refers to -- the subject</p> <p>18 is characterization of Guan- -- of the Guangxi 1</p> <p>19 crude and Cimpact 710 product.</p> <p>20 A Right.</p> <p>21 Q Do you remember the discussion with</p> <p>22 Johnson &amp; Johnson counsel on that document?</p> <p>23 A Sure.</p> <p>24 Q Let me ask you to turn to, while you're</p>
<p style="text-align: right;">Page 467</p> <p>1 Exhibit 32 to your deposition.</p> <p>2 (DEPOSITION EXHIBIT NUMBER 32</p> <p>3 WAS MARKED FOR IDENTIFICATION.)</p> <p>4 MS. O'DELL:</p> <p>5 Q Is Exhibit 32 one of the documents that</p> <p>6 you intended to reference at that portion of your</p> <p>7 report?</p> <p>8 I'm sorry. Doctor, can I take that</p> <p>9 back just for a second?</p> <p>10 A Sure.</p> <p>11 Q I've added another document to it. I</p> <p>12 didn't intend to do that. It just was in my</p> <p>13 stack.</p> <p>14 MR. FROST:</p> <p>15 Leigh, can you identify what document</p> <p>16 this is?</p> <p>17 MS. O'DELL:</p> <p>18 Sure. It is JNJ00059273.</p> <p>19 A Yeah.</p> <p>20 MR. BILLINGS-KANG:</p> <p>21 Is that JNJ or J&amp;J?</p> <p>22 MS. O'DELL:</p> <p>23 N.</p> <p>24 Q Is that the document, one of the</p>	<p style="text-align: right;">Page 469</p> <p>1 holding the document, Doctor -- maybe not put it</p> <p>2 too far away from you -- to page 8 of -- of your</p> <p>3 report. And, at the bottom of page 8 of your</p> <p>4 report, you include a sentence, "It is known that</p> <p>5 Rio Tinto identified problems with Guangxi talc</p> <p>6 ores in 1997 which resulted in the recommendation</p> <p>7 that a Luzenac representative be present at the</p> <p>8 mine during the mining and sorting process."</p> <p>9 A Right.</p> <p>10 Q Do you recall writing that?</p> <p>11 A Right. Yes.</p> <p>12 Q Turn to the last page of Exhibit 14 in</p> <p>13 the Recommendations section. Is the</p> <p>14 recommendation that you included in your report</p> <p>15 contained in the paragraph on page 4 of this</p> <p>16 document?</p> <p>17 A It is.</p> <p>18 Q And there's a sentence -- two sentences</p> <p>19 at the bottom. It says, "A Luzenac</p> <p>20 representative" --</p> <p>21 I'm reading from page 4 of Exhibit 14.</p> <p>22 "A Luzenac representative should be</p> <p>23 available at the mine during the mining and</p> <p>24 sorting process in order to confirm that the</p>

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<p style="text-align: right;">Page 470</p> <p>1 ore -- order is being handled per the negotiated 2 contract parameters. Meeting the ore at the port 3 will never allow us to control the quality and 4 chemistry of the crude we are ordering." 5 Is that -- did I read that correctly? 6 A Right. You did. 7 Q Is that what you were referring to in 8 your report? 9 A Uh-huh. It is. 10 Q Thank you, Doctor. Yeah. 11 You also, still speaking of China, were 12 asked about the sampling method that was used in 13 relation to Chinese ore once it reached -- 14 reached the port in Houston. 15 A Correct. 16 MR. FROST: 17 Objection to form. 18 MS. O'DELL: 19 Q Let me ask you to look at what I'm 20 marking as Exhibit 33. 21 (DEPOSITION EXHIBIT NUMBER 33 22 WAS MARKED FOR IDENTIFICATION.) 23 MS. O'DELL: 24 Q And it's Imerys 036949.</p>	<p style="text-align: right;">Page 472</p> <p>1 A I think it does. 2 Q And is -- is that at least one of the 3 reasons that you referenced that publication in 4 your report? 5 A It is. 6 Q Let me ask you, Doctor, to put that 7 aside for a moment. 8 You were asked a series of questions 9 regarding whether you would publish your expert 10 report in the peer-reviewed literature. I think 11 your response was no. Why did you respond to 12 that question in the negative? 13 MR. FROST: 14 Objection to form. 15 A The -- to start with, as with any work 16 like this, there is a confidentiality agreement 17 that comes in very quickly. And publishing any 18 part of this would -- would violate the agreement 19 that -- that I signed. 20 The -- part of the problem with this is 21 that if you -- if you try to publish something in 22 a peer-reviewed journal, how is a peer-reviewer 23 ever gonna be able to -- to -- to evaluate a 24 report like this? He's not gonna have access to</p>
<p style="text-align: right;">Page 471</p> <p>1 Is Exhibit 33 the sampling protocol 2 regarding Chinese ore that you were referring to? 3 A Yes. 4 Q Let me ask you, Dr. Cook -- 5 I'm gonna put that right here for the 6 moment. And on an exhibit marked -- I think it 7 was exhibit -- yes -- 21. Let me hand it to you. 8 It's a paper by Marconi and Verdel? 9 A Right. 10 Q And if you'll turn to page -- 11 On the -- on the document itself, the 12 page numbers, it's -- it's page 112. 13 A Okay. 14 Q Does Table 3 that appears on page 112 15 of this article show test results regarding 16 cosmetic talc? 17 MR. FROST: 18 Objection to the form. 19 A I think it does. 20 MS. O'DELL: 21 Q Uh-huh. And if you'll look at the 22 lower third of the table, does it -- the chart 23 indicate that there were asbestos fibers found in 24 cosmetic talc samples?</p>	<p style="text-align: right;">Page 473</p> <p>1 any -- any of the materials. So it wouldn't make 2 sense. It would be off limits. 3 MS. O'DELL: 4 Q Is that because many of the materials, 5 documents that you've cited in your report, those 6 would be subject to a confidentiality order and 7 it would be a violation of that order? 8 A That's -- that's what I mean. I mean, 9 I sign a confidentiality agreement not to divulge 10 any of this. So -- 11 Q Okay. Let me ask you to turn in your 12 report, Dr. Cook, to page 31. 13 A Okay. 14 Q And, specifically, I would direct your 15 attention to the table that reports some of the 16 nickel analyses that are -- that are contained in 17 your report. 18 A Okay. 19 Q And -- and you were asked questions 20 regarding whether this -- the samples that were 21 tested were finished product. And let me just 22 back up and ask. Were the samples, many of which 23 that you report in this chart, were they finished 24 talc product?</p>

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<p style="text-align: right;">Page 474</p> <p>1 MR. FROST: 2 Objection to form. 3 A That is my understanding, based on the 4 description of the samples in the cited 5 references. 6 MS. O'DELL: 7 Q All right. And, in fact, number 3 in 8 the chart, the description is baby powder. 9 Correct? 10 A Correct. 11 Q And in that -- that has, I think, three 12 samples that were tested. And were the findings 13 1500 parts per million, 1480 parts per million, 14 and 1500 parts per million, respectively? 15 MR. FROST: 16 Objection to form. 17 A That's correct. 18 MS. O'DELL: 19 Q And would it be fair to say that a 20 finding of greater than, you know, 1400 or 1500 21 parts per million, would it be fair to say that 22 that is an extremely high level of -- of nickel? 23 MR. FERGUSON: 24 Objection for form.</p>	<p style="text-align: right;">Page 476</p> <p>1 Objection. Move to strike answer as 2 nonresponsive and speculative. 3 MS. O'DELL: 4 Oppose the motion. 5 Q The -- the -- and, in this table for 6 nickel as well as the table that is compiled for 7 chromium and cobalt, does that include values or 8 data from annual samples that were provided to 9 Johnson &amp; Johnson? 10 A Yes. 11 MR. FROST: 12 Objection. 13 MS. O'DELL: 14 Q And is it your understanding, based on 15 your review of the data, that that would be 16 finished product? 17 A Yes. Finished in the sense that it's 18 gonna go toward packaging now when they're done 19 with the processing. 20 Q Okay. Let me ask you to turn to page 21 32 of your report that relates to your discussion 22 of -- of chromium. And, Dr. Cook, let me ask you 23 a general question about the test data that's 24 reported in this chart.</p>
<p style="text-align: right;">Page 475</p> <p>1 MR. FROST: 2 Objection to form. Also, object to the 3 question since he's already admitted he's not 4 qualified to answer that. 5 THE WITNESS: 6 No, I am. The way she asked the 7 question, I am. I've dealt with geochemical 8 nickel for -- almost for the entire time I was at 9 Auburn. 10 And anything over a hundred parts per 11 million, when we're doing our field work, that is 12 an indication that we've got an unusual rock type 13 that we're looking at. 14 And, in fact, the -- the platinum and 15 nickel exploration that I'm doing right now, if 16 we could find numbers this high, we'd be 17 thrilled, because a value of 1500 parts per 18 million nickel is almost ore grade for an 19 open-pit operation, and it -- it indicates that 20 we're looking at a serpentinized ultramafic rock 21 that may have economic nickel or PGMs. 22 MS. O'DELL: 23 Q Okay. And do the -- 24 MR. FROST:</p>	<p style="text-align: right;">Page 477</p> <p>1 In each instance, do the chromium 2 numbers that were seen in these test results 3 exceed the Johnson &amp; Johnson specification upper 4 limit of normal for chromium by, you know, orders 5 of magnitude? 6 MR. FROST: 7 Objection to form. 8 MR. BILLINGS-KANG: 9 Objection to form. 10 A They are far higher than the 10 ppm. 11 MS. O'DELL: 12 Q Would that also be true regarding the 13 test results that are reported in relation to 14 cobalt in -- 15 A Yes. 16 Q You were asked a number of questions 17 regarding beneficiation and the process that was 18 undertaken to process talc ore. Let me ask you 19 specific questions about Vermont. 20 Having reviewed the descriptions of the 21 beneficiation process at West Windsor, was there 22 anything in that beneficiation process that would 23 have removed high levels of nickel found in talc 24 ore?</p>

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<p style="text-align: right;">Page 478</p> <p>1 MR. FROST: 2 Objection to form. 3 A No. I don't think it was -- would be 4 possible. 5 MS. O'DELL: 6 Q Similarly, in relation to cobalt, was 7 there any part of the beneficiation process at 8 the West Windsor mill in Vermont that would have 9 addressed high levels of cobalt? 10 MR. FROST: 11 Objection. 12 A There's a possibility that if all of 13 the cobalt was contained in cobaltite, which is a 14 cobalt arsenic -- that's a dense mineral -- it 15 might sink in a flotation cell and be removed 16 that way. But the numbers that I've got are on 17 the finished product, not on the -- not on ore 18 going in. 19 MS. O'DELL: 20 Q And that would suggest that, in fact, 21 the beneficiation process did not affect it? 22 A It's probably -- 23 MR. FROST: 24 Objection to the form.</p>	<p style="text-align: right;">Page 480</p> <p>1 fibrous talc. 2 Q And, therefore, to the degree that 3 fibrous talc was mined from the ore body and -- 4 and made a part of the ore, then is it your 5 opinion that the beneficiation process would not 6 remove the fibrous talc, you know, from the 7 product? 8 A I don't -- I don't see how it could. 9 You're referring to West Windsor; 10 right? 11 Q Yes. 12 A I don't see how it could. 13 Q Would the beneficiation process at 14 West Windsor have been effective for purposes of 15 removing high levels of arsenic? 16 MR. FROST: 17 Objection to form. 18 A I think it's possible that some arsenic 19 could have come out in the sink fraction of the 20 flotation cells. 21 MS. O'DELL: 22 Q If asbestos was mined and removed 23 during the mining process, is there anything in 24 the beneficiation process at West Windsor that</p>
<p style="text-align: right;">Page 479</p> <p>1 MR. FERGUSON: 2 Objection to the form. 3 A That's correct. 4 MS. O'DELL: 5 Q Let me ask it a different way to 6 address these. 7 Based on the numbers, the test data 8 that you reviewed regarding finished talc powder, 9 is it your opinion that the beneficiation process 10 at West Windsor was not affected to remove high 11 levels of cobalt? 12 MR. FROST: 13 Objection. 14 A I don't think it could. 15 MS. O'DELL: 16 Q Okay. Let me ask you about fibrous 17 talc in regard to the beneficiation process. Is 18 it -- do you have an opinion as to whether the 19 beneficiation process at West Windsor would 20 remove fibrous talc? 21 A I don't see how it's possible, 22 particularly in the flotation circuit. I think 23 that the flotation process is not gonna be able 24 to distinguish platy non-fibrous talc from</p>	<p style="text-align: right;">Page 481</p> <p>1 would have removed asbestos as part of the 2 processing? 3 A Well, there -- there are reagents that 4 could suppress chrysotile. I don't know of any 5 that would suppress amphibole asbestos. But I 6 didn't see anything in the documents I was 7 supplied that would indicate that there was an 8 attempt made or that there was any kind of design 9 that was -- was pointed toward removal of -- of 10 asbestos. 11 Q You were asked a number of questions 12 about the chart in your report addressing 13 positive test results for asbestos. Do you 14 recall those questions? 15 A Yes. 16 Q And I think that counsel for Johnson &amp; 17 Johnson addressed five test results, calling them 18 into question as industrial talc. 19 A Correct. 20 Q And in -- in those instances -- 21 Strike that. 22 Is there anything that -- that counsel 23 presented to you today that would undermine your 24 opinions regarding the other test results</p>

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<p style="text-align: right;">Page 482</p> <p>1 contained in the chart?</p> <p>2 A No.</p> <p>3 Q And, generally speaking, if you know,</p> <p>4 how many other positive test results for asbestos</p> <p>5 are contained in a chart besides the five that he</p> <p>6 pointed out?</p> <p>7 A Oh, there's over a hundred.</p> <p>8 Q And are those test results supportive</p> <p>9 of your opinion that the talc deposits in Italy</p> <p>10 and Vermont contained fibrous asbestos --</p> <p>11 asbestos mills?</p> <p>12 MR. FROST:</p> <p>13 Objection to form.</p> <p>14 A The published information and some of</p> <p>15 the unpublished reports on Italy suggested there</p> <p>16 could be some in that talc. And, of course, I've</p> <p>17 got lots of data on Vermont that would suggest</p> <p>18 that.</p> <p>19 MS. O'DELL:</p> <p>20 Q You were asked questions about</p> <p>21 selective mining today, and --</p> <p>22 Before I do that --</p> <p>23 Excuse me. Also in regard to the</p> <p>24 fibrous talc chart, I think the counsel called</p>	<p style="text-align: right;">Page 484</p> <p>1 Q Earlier today you were asked a lot of</p> <p>2 questions by counsel, and a lot of suggestions</p> <p>3 were made that somehow documents, you know, were</p> <p>4 withheld by plaintiffs' counsel. Do you recall</p> <p>5 that?</p> <p>6 A Yes.</p> <p>7 MR. FROST:</p> <p>8 Objection to form.</p> <p>9 MS. O'DELL:</p> <p>10 Q At the beginning of your engagement in</p> <p>11 this case, did you provide a list of -- of</p> <p>12 documents, really document requests, that you</p> <p>13 asked that those documents be searched for and,</p> <p>14 to the degree made available by defendants,</p> <p>15 provided to you?</p> <p>16 A Yes.</p> <p>17 Q Do you have any reason to believe</p> <p>18 that -- that documents were withheld from you</p> <p>19 in -- in rendering your opinions?</p> <p>20 MR. FROST:</p> <p>21 Objection to form. Misstates</p> <p>22 questioning and testimony.</p> <p>23 A I have no reason to believe that --</p> <p>24 that anybody has withheld anything. You know,</p>
<p style="text-align: right;">Page 483</p> <p>1 into question maybe one of the line items or the</p> <p>2 entries --</p> <p>3 Two. Excuse me.</p> <p>4 -- two of the entries in the fibrous</p> <p>5 talc chart that you have in your report.</p> <p>6 A Right.</p> <p>7 Q Is there any data that you've been</p> <p>8 presented today or question that would -- data or</p> <p>9 information you've been presented today that</p> <p>10 would call into question in your mind any of the</p> <p>11 other positive test result -- results for fibrous</p> <p>12 talc?</p> <p>13 A No.</p> <p>14 MR. FROST:</p> <p>15 Objection.</p> <p>16 MS. O'DELL:</p> <p>17 Q Are -- are you relying on the data</p> <p>18 contained in the asbestos chart to support your</p> <p>19 opinions in this case?</p> <p>20 A Yes.</p> <p>21 Q Are you relying on the data contained</p> <p>22 in the fibrous talc chart to support your</p> <p>23 opinions?</p> <p>24 A Yes.</p>	<p style="text-align: right;">Page 485</p> <p>1 my -- my approach is everybody's on the up and</p> <p>2 up.</p> <p>3 MS. O'DELL:</p> <p>4 Q Do you -- did you see, in reaching your</p> <p>5 opinions in regard to asbestos, did you see not</p> <p>6 only positive test results but did you also look</p> <p>7 at negative test results?</p> <p>8 A Yes, plenty.</p> <p>9 Q And did you consider those results also</p> <p>10 in --</p> <p>11 A Yes.</p> <p>12 Q Excuse me. Let me finish. Excuse me.</p> <p>13 -- in reaching your opinions in this</p> <p>14 case?</p> <p>15 A Yes, of course.</p> <p>16 Q You were asked some questions about</p> <p>17 selective mining, and -- and you -- you made a</p> <p>18 statement that you -- it was your opinion that</p> <p>19 selective mining practices had not been used</p> <p>20 in -- in mining talc --</p> <p>21 MR. FROST:</p> <p>22 Objection.</p> <p>23 MS. O'DELL:</p> <p>24 Q -- for purposes of sourcing talcum</p>

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<p style="text-align: right;">Page 486</p> <p>1 powder products. 2 MR. FROST: 3 Objection to form. 4 MS. O'DELL: 5 Q Do you recall that -- 6 A Yes. 7 Q -- testimony? 8 What's the basis for your opinion that 9 appropriate selective mining practices were not 10 used? 11 A Well, to start with, they're not 12 described in any of the documents. And -- and 13 the -- the few photographs that we've got of the 14 mines don't suggest selective mining. It -- it 15 just isn't there. 16 Q And if you'll look on page 8, is -- 17 does -- is the photograph on page 8 one of the -- 18 the photographs that you considered in reaching 19 your opinion regarding selective mining? 20 A Yes. 21 Q And -- and describe for us, Dr. Cook, 22 why that photograph does not depict appropriate 23 selective mining techniques. 24 MR. FROST:</p>	<p style="text-align: right;">Page 488</p> <p>1 Objection to form. 2 MR. FERGUSON: 3 Objection. 4 A I wouldn't. I don't see anything in 5 this photograph that would suggest that there was 6 a selection of higher grade material versus lower 7 grade. 8 MR. FROST: 9 Move to strike answer as speculative. 10 MS. O'DELL: 11 Q Is your answer speculative? 12 MR. FROST: 13 Objection to form. 14 A It's based on my observation of the 15 photograph. It's conclusion. 16 MS. O'DELL: 17 Q And, in reaching that conclusion, have 18 you used your, you know, your special expertise 19 as a mining engineer and, you know, professor of 20 geology that teaches mining practices? 21 MR. FROST: 22 Objection to form. 23 A Yes. 24 MS. O'DELL:</p>
<p style="text-align: right;">Page 487</p> <p>1 Objection to form. 2 A Okay. This one is fairly simple. 3 You've got a single loader, but you've got three 4 piles of broken rock that would suggest that he's 5 gonna be loading ore from material derived from 6 three separate shots, and these -- these shot 7 piles are very close to each other. And there's 8 no indication here at all that this has anything 9 to do with selective mining. I mean, the only -- 10 the only way this is selective mining is if 11 everything we see in the photograph that's broken 12 ore is good ore. We're gonna mine all of it. 13 But -- but this is not what I would expect to 14 see. 15 MS. O'DELL: 16 Q Is -- is -- based on your knowledge of 17 the geology that -- 18 Let me strike that. 19 Based on your review of the core logs 20 in -- that have been produced in this case 21 regarding the Vermont mines, would you expect in 22 a picture like this that all the -- the rocks 23 would be, you know, pure talc? 24 MR. FROST:</p>	<p style="text-align: right;">Page 489</p> <p>1 Q You were asked a number of questions 2 regarding samples in the sampling process that 3 was utilized over the course of -- of the -- I 4 guess more than 50 years -- 5 A Right. 6 Q -- that we've discussed today. 7 Quickly, Doctor, just in a setting like the ones 8 described, particularly in Vermont, is a monthly 9 composite sample representative? 10 MR. FROST: 11 Objection to form. 12 A It wouldn't be to me. 13 MS. O'DELL: 14 Q Why? 15 A Because -- 16 And -- and we can use arsenic as an 17 example. We know that there were -- there were 18 some high arsenic ores that went to the West 19 Windsor mill. 20 Suppose you had one day's run at 21 Windsor mill that had an arsenic value of 10 22 parts per million. That exceeds the acceptable 23 limit. How would you know that that ever went 24 through the mill? It's gonna go through the mill</p>

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<p style="text-align: right;">Page 490</p> <p>1 and then go into a silo, and, in that silo, 2 there's gonna be a layer that is represented by 3 that product. 4 Let's say the next day you've got 5 perfect talc, hundred percent talc, no arsenic at 6 all. Okay. That's gonna go in and it's gonna 7 sit on top of the layer of out-of-spec talc. 8 Well, if all you have is a daily 9 sample, then if you've got one that's 10 parts 10 per million arsenic, had you analyzed it that 11 day, and the -- the other 29 or 30 samples are 12 one part per million arsenic, then your composite 13 at the end of the month is gonna be in spec, but 14 you're gonna have some talc in that silo that 15 isn't. 16 And that's my objection to the way 17 compositing is done. I think it's definitely 18 something that can be done in some situations, 19 but I think here it's -- it's not a good idea. 20 MR. FROST: 21 Move to strike answer as speculative. 22 MS. O'DELL: 23 Q Is that -- is that based on -- 24 A That is not a speculation. That is a</p>	<p style="text-align: right;">Page 492</p> <p>1 your review of the core logs that have been 2 produced in litigation, was there evidence in 3 those core logs of the presence of fibrous talc? 4 A Fibrous talc, yes, is -- was mentioned 5 in some of the core logs. 6 Q And was there also references to the 7 presence of amphiboles? 8 A Of amphiboles? 9 Q Yes. 10 A Oh, yeah, sure. 11 Q And -- and, in some of those cases, 12 were -- were the presence of fibrous amphiboles 13 noted? 14 A Yes. 15 Q Let me ask you, in regard to asbestos 16 testing, I think it was -- you referenced a 17 document in your report regarding a testing 18 procedure where samples were tested every six 19 months for asbestos in -- in Vermont. Do you 20 recall that? 21 A Yes. 22 Q And would sampling and testing -- would 23 a six-month sample for talc -- 24 Strike that.</p>
<p style="text-align: right;">Page 491</p> <p>1 statement of fact. 2 MR. FROST: 3 Move to strike nonresponsive answer. 4 MS. O'DELL: 5 Q Is that based on your evaluation of the 6 variability of the geology of the deposits in 7 Vermont? 8 MR. FROST: 9 Objection to form. 10 A Yes. And we already know there's 11 variation, and I just used arsenic as a good 12 example. Because if you look at the Hamm mine, 13 that's the one mine that we have some good 14 drilling numbers throughout the pit. Clearly 15 shows that there are areas of the mine that are 16 high arsenic, way out of spec -- 17 No. I'm sorry. It was the Rainbow 18 mine. 19 And then there are areas in the mine 20 that are great. 21 MS. O'DELL: 22 Q Uh-huh. And in your -- in your 23 review -- 24 You just mentioned the core logs. In</p>	<p style="text-align: right;">Page 493</p> <p>1 Let me ask you, is that a 2 representative way to test talc powder for 3 asbestos? 4 MR. FROST: 5 Objection to form. 6 A A six-month composite? 7 MS. O'DELL: 8 Q Yes. 9 A Well, I wouldn't be happy with it. 10 Q Why? 11 A Because the sample that's actually run 12 weighs less than a gram, and you're -- you're 13 trying to come up with a way to validate the fact 14 that that less than a gram of material is -- is 15 gonna be representative of perhaps a thousand 16 tons of ore, 2,000 tons. It's -- it's very hard 17 to imagine that you can show that it would be. 18 Q Under any mathematical model, would 19 that small of a sample that's tested be 20 representative of tens of thousands of tons of 21 ore? 22 MR. FROST: 23 Objection to form. 24 A I think it would be probably</p>

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<p style="text-align: right;">Page 494</p> <p>1 impossible. There's some things that you could 2 do to move it along toward the 3 representativeness, but I don't think they were 4 done. 5 MS. O'DELL: 6 Q Are you -- are your opinions in this 7 case contained in your report that's dated 8 January 22nd, 2019, as well as your deposition 9 that you've given here today? 10 A Are they -- 11 Q As well as the deposition? 12 A No. What was the first part of the 13 question? 14 Q Are your opinions in this case 15 contained in your -- 16 A Oh, are they contained? Sure. Of 17 course. 18 Q Let me finish. 19 -- amended report that's dated January 20 22nd, 2019, as well as your deposition that 21 you've given here today? 22 A Yes. 23 Q All right. I have nothing further. 24 Thank you, Doctor.</p>	<p style="text-align: right;">Page 496</p> <p>1 I want to talk about that. Okay? 2 A Sure. 3 Q And remind me, which mine was that at? 4 A Okay. That one was Argonaut, that 5 photograph was. But we've got some in the back 6 that are -- I think there's a Hamm mine picture 7 possibly in there. 8 Q All right. So with regard to the 9 Argonaut mine and your conclusion that -- that 10 appropriate selective mining procedures were not 11 being carried out, how many photographs did you 12 look at? 13 A I looked at everything we were given. 14 And it's -- it's only a handful, not -- 15 Q Well, and does a handful mean five or 16 less? 17 A It's probably more than five but less 18 than ten. 19 Q Okay. So -- so somewhere between five 20 and ten photographs you looked at. Correct? 21 A Well, I also looked at Google Earth, 22 which, you know, has its own, you know, set of 23 photographs that you can look at. 24 Q All right. And how many Google Earth</p>
<p style="text-align: right;">Page 495</p> <p>1 MR. FROST: 2 I'd just like two minutes. Actually, 3 no. You guys, why don't you guys stay here? I 4 think we'll be quick. I'll take Mr. Ferguson 5 outside. 6 VIDEOGRAPHER: 7 Going off the record. 8 (OFF THE RECORD.) 9 VIDEOGRAPHER: 10 We're back on the record. The time is 11 7:10 p.m. 12 MR. FERGUSON: 13 I don't think Mr. -- 14 Oh, I'm sorry. 15 I don't think Mr. Frost has any 16 questions. Right, Jack? 17 MR. FROST: 18 That's correct. 19 EXAMINATION 20 BY MR. FERGUSON: 21 Q Okay. Just very briefly, Dr. Cook. 22 So, with regarding to the -- the photographs that 23 you observed that had to do with the selective 24 mining issue you just discussed with Miss O'Dell,</p>	<p style="text-align: right;">Page 497</p> <p>1 photographs did you look at? 2 A Well, it depends. You know, they have 3 a historical, you know, button you can push. And 4 I don't remember how many different dates there 5 were of the Ludlow area. But there were -- there 6 were four or five. 7 Q Okay. So do you have copies of the -- 8 A No. I didn't print them. 9 Q -- photographs? 10 A I didn't save them. But, I mean, 11 they're easy to go back to and get. 12 Q Okay. 13 A And I'd -- you know, I'd be more than 14 happy to tell you why I made the comment about 15 couldn't see the evidence of the selective 16 mining. 17 If you look at the photographs that 18 I -- 19 Q I don't think -- I -- I don't have a 20 question on the table, but -- 21 A Oh. I thought you did, but -- 22 Q I didn't. 23 A Okay. 24 Q So I'm trying to get the number of</p>

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<p style="text-align: right;">Page 498</p> <p>1 photographs.</p> <p>2 A Oh, okay.</p> <p>3 Q So between five and ten photographs</p> <p>4 that you were provided that you looked at.</p> <p>5 A Correct.</p> <p>6 Q Correct?</p> <p>7 A Yes.</p> <p>8 Q And then some Google Earth</p> <p>9 photographs --</p> <p>10 A Google Earth.</p> <p>11 Q -- that you -- you haven't shared with</p> <p>12 us. Correct?</p> <p>13 A Correct.</p> <p>14 MS. O'DELL:</p> <p>15 Object to the form.</p> <p>16 MR. FERGUSON:</p> <p>17 Q And when were the Google Earth</p> <p>18 photographs taken? I mean, when --</p> <p>19 A They go back -- I think the most recent</p> <p>20 one was a two -- I think there might have been a</p> <p>21 2018 photograph. And then they go back. It's an</p> <p>22 irregular number of years that they -- that they</p> <p>23 present you with. But I think that maybe --</p> <p>24 They had some that were so far back</p>	<p style="text-align: right;">Page 500</p> <p>1 It's mined out.</p> <p>2 MS. O'DELL:</p> <p>3 Objection to form.</p> <p>4 MR. FERGUSON:</p> <p>5 Q Excuse me?</p> <p>6 A It's mined out.</p> <p>7 Q Okay.</p> <p>8 A And if you're looking at a 2018</p> <p>9 photograph, the material that was being mined in,</p> <p>10 say, 1995, I mean, you're looking at a part of a</p> <p>11 hole in the ground.</p> <p>12 Q Well, let's focus on the five to ten</p> <p>13 photographs. Okay?</p> <p>14 A Okay.</p> <p>15 Q Okay? Right? The five to ten</p> <p>16 photographs you were provided of the Argonaut</p> <p>17 mine --</p> <p>18 A Okay.</p> <p>19 Q -- from which you concluded that</p> <p>20 selective mining procedures were not being</p> <p>21 applied properly.</p> <p>22 A Correct.</p> <p>23 Q Okay?</p> <p>24 MS. O'DELL:</p>
<p style="text-align: right;">Page 499</p> <p>1 that they were useless. The quality of the</p> <p>2 photograph was no good. And, so, with that</p> <p>3 thought in mind, I'm gonna say there were</p> <p>4 probably three or four of Ludlow area that were</p> <p>5 useful.</p> <p>6 And I can't tell you what the oldest</p> <p>7 one was, but it would -- it would be, say, 2003,</p> <p>8 maybe. Maybe -- maybe one that was pre-2000.</p> <p>9 Q But with regard to the photographs that</p> <p>10 you looked at that were 2003 or post-2003, those</p> <p>11 were when that mine was no longer being used to</p> <p>12 source cosmetic talc; correct?</p> <p>13 MS. O'DELL:</p> <p>14 Object to the form.</p> <p>15 A Yeah, that's right. And that's why I</p> <p>16 said I'd be glad to, you know, discuss the ones</p> <p>17 in here, because they're pre-2003.</p> <p>18 MR. FERGUSON:</p> <p>19 Q So -- so, essentially, the Google Earth</p> <p>20 photographs, which are perhaps all post-2003,</p> <p>21 don't tell us anything about -- about what was</p> <p>22 going on in the mine during the period of time</p> <p>23 when it was being used to source talc?</p> <p>24 A No. That part of the mine is gone.</p>	<p style="text-align: right;">Page 501</p> <p>1 Object to the form.</p> <p>2 MR. FERGUSON:</p> <p>3 Q And what was the time frame for those</p> <p>4 photographs?</p> <p>5 A I've got them in my report.</p> <p>6 Q Okay.</p> <p>7 A I don't remember the exact dates. But</p> <p>8 they're -- each photograph I've -- I've tried to</p> <p>9 give a date on.</p> <p>10 Q Okay. So how long had that mine been</p> <p>11 being mined for purposes of cosmetic talc before</p> <p>12 2003? Do you know?</p> <p>13 A It's an old mine. It was originally an</p> <p>14 underground mine. And I think that probably as</p> <p>15 long as the West Windsor mill had been in</p> <p>16 operation there had been some cosmetic talc</p> <p>17 coming out of Argonaut.</p> <p>18 Q So it's been mined for years and years</p> <p>19 and years; correct?</p> <p>20 A I think so.</p> <p>21 Q Okay. And the five to ten photographs</p> <p>22 that you looked at, how long does it take to take</p> <p>23 a photograph? Something less than a second?</p> <p>24 MS. O'DELL:</p>

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<p style="text-align: right;">Page 502</p> <p>1 Object to the form.</p> <p>2 A Yes. But --</p> <p>3 MR. FERGUSON:</p> <p>4 Q Okay. So -- so those photographs were</p> <p>5 showing you what the mine looked like during the</p> <p>6 millisecond it took to take each of those</p> <p>7 photographs; correct?</p> <p>8 MS. O'DELL:</p> <p>9 Object to the form.</p> <p>10 A Yeah. That's -- that's sort of a</p> <p>11 loaded question, because what you see in the</p> <p>12 photographs is the -- the result of mining over a</p> <p>13 period of time. Sure.</p> <p>14 You've got a photograph. I mean,</p> <p>15 everybody knows it doesn't take very long to take</p> <p>16 a photograph. But if you're taking a photograph</p> <p>17 of a mine that is -- that is full of shot rock</p> <p>18 and waste rock and benches that are -- have been</p> <p>19 covered with -- with material that I wouldn't</p> <p>20 think should be there if you were selectively</p> <p>21 mining a higher-grade deposit, then the -- the</p> <p>22 little millisecond that it takes to take that</p> <p>23 photograph is capturing a condition that probably</p> <p>24 represents a number of years.</p>	<p style="text-align: right;">Page 504</p> <p>1 A Well, it might. But I'd say that the</p> <p>2 odds are that in that -- in the hour preceding</p> <p>3 when the aerial photograph was taken, there</p> <p>4 wouldn't have been a shot, because these</p> <p>5 photographs were not taken by, you know, some</p> <p>6 tourist flying over. These are aerial</p> <p>7 photographs that were apparently taken by</p> <p>8 Johnson &amp; Johnson or probably Imerys personnel to</p> <p>9 document the condition of the mine at that point.</p> <p>10 It's very common to do this, because that's one</p> <p>11 of the ways that you can -- can measure your</p> <p>12 stockpiles is -- is by overflights.</p> <p>13 Q Do you know who took them?</p> <p>14 A No, I don't know who took them. It may</p> <p>15 have said somewhere in the document.</p> <p>16 They came out of -- they came out of --</p> <p>17 I think some of them actually came out of a</p> <p>18 Luzenac document.</p> <p>19 Q And you don't know, yourself, what</p> <p>20 occurred, whether there had been a blast in the</p> <p>21 previous hour, two hours?</p> <p>22 A No. What I was gonna say was if it was</p> <p>23 gonna be a blast that day, I don't think I would</p> <p>24 have been up in a plane over the quarry.</p>
<p style="text-align: right;">Page 503</p> <p>1 Q But when you took the photo -- when you</p> <p>2 looked at the photographs, they represented only</p> <p>3 a very, very short span of time in a -- in a mine</p> <p>4 that's been mined for years and years and years;</p> <p>5 correct?</p> <p>6 MS. O'DELL:</p> <p>7 Object to the form.</p> <p>8 A That's what I'm saying is it may not</p> <p>9 represent a short span of time. If you take a</p> <p>10 look at the photographs, it should be pretty</p> <p>11 obvious to you that the mines are not -- they're</p> <p>12 not -- I wouldn't call them clean. There's an</p> <p>13 awful lot of rock that is scattered about that --</p> <p>14 that you wouldn't see if you were selectively</p> <p>15 mining rock to make sure that you weren't getting</p> <p>16 bad material mixed in with good.</p> <p>17 MR. FERGUSON:</p> <p>18 Q And do you know what had been going on</p> <p>19 immediately in the previous hour or so before the</p> <p>20 photograph was taken?</p> <p>21 A It would look exactly like the</p> <p>22 photograph. I mean, mining doesn't -- it</p> <p>23 isn't -- unless they had shot off a blast.</p> <p>24 Q Okay. That happens, doesn't it?</p>	<p style="text-align: right;">Page 505</p> <p>1 Q Okay. And have you talked to whoever</p> <p>2 took the plane to take the pictures?</p> <p>3 MS. O'DELL:</p> <p>4 Object to the form.</p> <p>5 A I have no idea who took the pictures.</p> <p>6 MR. FERGUSON:</p> <p>7 Q That's all. Thank you, sir.</p> <p>8 A Sure.</p> <p>9 MS. O'DELL:</p> <p>10 I have nothing further, Doctor.</p> <p>11 MR. FROST:</p> <p>12 I have a real quick follow-up on those</p> <p>13 questions.</p> <p>14 MS. O'DELL:</p> <p>15 I may have something further, but not</p> <p>16 after Mr. Ferguson.</p> <p>17 EXAMINATION</p> <p>18 BY MR. FROST:</p> <p>19 Q All right, sir. Look at page 8 of your</p> <p>20 report, that picture.</p> <p>21 A Right.</p> <p>22 Q So is the airplane parked on the</p> <p>23 ground?</p> <p>24 A No. The aerial photographs are in the</p>

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<p style="text-align: right;">Page 506</p> <p>1 exhibit in the back. 2 Q Okay. Let's turn to the exhibit in the 3 back. 4 A Yeah. 5 Q Would you agree with me that only two 6 of these pictures actually appear to be aerial 7 photos of the mine? 8 A Right. Sure. 9 Q Okay. The rest of the one, two, three, 10 four, five -- 11 A They illustrate exactly what I was 12 talking about. 13 Q Well, again, my question is only two of 14 the photographs are aerial; correct? 15 A Sure. 16 Q The other five appear to be taken from 17 the ground? 18 MS. O'DELL: 19 Just count them. Don't agree if you 20 don't -- 21 A No. 22 MR. FROST: 23 Q Well, you can count them, but it's 24 five.</p>	<p style="text-align: right;">Page 508</p> <p>1 C E R T I F I C A T E 2 STATE OF ALABAMA) 3 COUNTY OF MOBILE) 4 5 I do hereby certify that the above and 6 foregoing transcript of proceedings in the matter 7 aforementioned was taken down by me in machine 8 shorthand, and the questions and answers thereto 9 were reduced to writing under my personal 10 supervision, and that the foregoing represents a 11 true and correct transcript of the proceedings 12 given by said witness upon said hearing. 13 I further certify that I am neither of 14 counsel nor of kin to the parties to the action, 15 nor am I in anywise interested in the result of 16 said cause. 17 Signed this 2nd day of February, 2019. 18 19 20 21 LOIS ANNE ROBINSON, RDR 22 COURT REPORTER, NOTARY PUBLIC 23 STATE OF ALABAMA AT LARGE 24 ACCR# 352; EXPIRES 9/30/19</p>
<p style="text-align: right;">Page 507</p> <p>1 A But since you've pointed out that not 2 all of them were from the air, the last 3 photograph was from the ground because the plane 4 was grounded because of snow. 5 Q Sure. There we go. 6 All right. That's all the questions I 7 have, sir. 8 MS. O'DELL: 9 I have nothing further. 10 VIDEOGRAPHER: 11 We're off the record. The time is 12 7:20 p.m. 13 (DEPOSITION EXHIBITS 34-1 TO 34-13, 14 35, 36, 37, 38, AND 39 WERE MARKED 15 FOR IDENTIFICATION.) 16 (Deposition concluded at 7:20 p.m.) 17 18 19 20 21 22 23 24</p>	<p style="text-align: right;">Page 509</p> <p>1 E R R A T A P A G E 2 3 I, ROBERT COOK, Ph.D., the witness 4 herein, have read the transcript of my testimony, 5 and the same is true and correct, to the best of my 6 knowledge, with the exceptions of the following 7 changes noted below, if any: 8 Page/Line Word/Words to be changed Correct Word 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24</p> <p style="text-align: right;">ROBERT COOK, Ph.D.</p>

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<p style="text-align: right;">Page 510</p> <p>1                   DECLARATION OF WITNESS</p> <p>2</p> <p>3           I, the undersigned, declare under penalty</p> <p>4 of perjury that I have read the foregoing</p> <p>5 transcript, and I have made any corrections,</p> <p>6 additions, or deletions that I was desirous of</p> <p>7 making; that the foregoing is a true and correct</p> <p>8 transcript of my testimony contained herein.</p> <p>9           EXECUTED this _____ day of _____,</p> <p>10 2019, at _____, _____.</p> <p>                  (City)                   (State)</p> <p>11</p> <p>12</p> <p>13</p> <p>14</p> <p>15</p> <p>16                   _____</p> <p>17                   ROBERT COOK, Ph.D.</p> <p>18</p> <p>19</p> <p>20</p> <p>21</p> <p>22</p> <p>23</p> <p>24</p>	

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